### Burials, bodies and beheadings in Romano-British and Anglo-Saxon cemeteries

#### M. Harman

3 Hampden Close, Tollgates, Battle, East Sussex

#### T. I. Molleson

Subdepartment of Anthropology, Department of Palaeontology, British Museum (Natural History), Cromwell Road, London SW7 5BD

#### J. L. Price

Department of Radiology, Royal Surrey County Hospital, Guildford, Surrey

#### Synopsis

Five late Romano-British sites, Cassington, Queensford Mill, Radley, Stanton Harcourt and Curbridge, all within a restricted area of the upper Thames valley, have produced over 200 extant skeletons. These have provided information for a study of the population, its health and its burial practices. Details of each individual are tabulated. The age at death, average adult height and frequency of some non-metric variables are given. Health is considered in detail: dental health, injuries, frequency of fractures, the incidence of osteo-arthritis and the occurrence of other disease, including the earliest recorded case of tuberculosis in Britain and an early example of possible osteosarcoma.

The association of decapitated and prone burials in three of the cemeteries is noted and considered in a survey of the recorded instances of both practices in Romano-British and Anglo-Saxon cemeteries.

#### Introduction

Students of early British populations consulting the collection of the Subdepartment of Anthropology of the British Museum (Natural History) may be surprised to find some of the boxes labelled 'Oxford Collection'. The origins of this collection go back to the midnineteenth century, when George Rolleston, Professor of Human Anatomy at Oxford, assembled a large collection of skeletons from all over the world. The British archaeological material was derived from all parts of the country, but particularly from local sites. Rolleston's contemporaries rescued material from quarries and railway cuttings, and carried out their own excavations, especially on visible monuments such as barrows. Rolleston himself was no mean antiquary and retrieved much material. The tradition of personal involvement was continued by his successors in the Department of Human Anatomy, Dudley Buxton and Miss Beatrice Blackwood. E. T. Leeds, Keeper of the Ashmolean Museum, and his colleagues contributed remains from several cemeteries, and the Department received bones from other archaeologists. Thus the collection continued to grow. In the late 1940's, the major part of this collection, an outstanding group of skeletal material, well catalogued and organized, was given to the British Museum (Natural History) where it became known as the 'Oxford Collection'.

The bones from two excavations, Cassington and Radley, have never been published, and these, together with some from more recent excavations at Curbridge, Stanton Harcourt and Queensford Mill, provide a sample of over 200 individuals from a restricted area of the upper Thames valley attributed to the late Romano-British period (third to early fifth centuries AD). These have provided information for the study of the population, its health, and its burial practices, particularly decapitation and prone burial. Both of these practices occur not

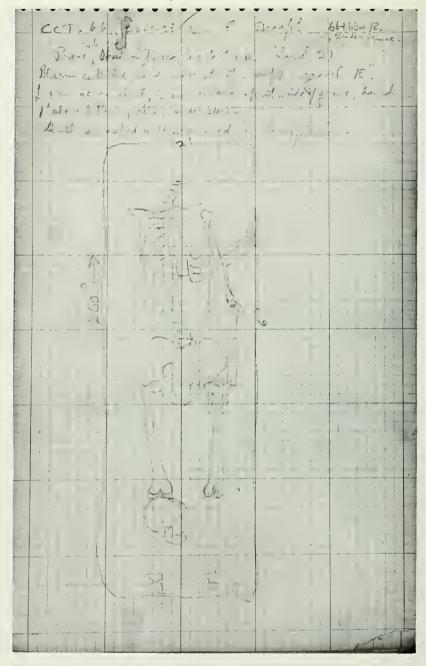


Fig. 1 Decapitated and prone burial from Cassington as depicted in Captain Musgrave's field notebook. Original notebook in Ashmolean Museum, Oxford. Reproduced with permission.

uncommonly in southern England in late Romano-British times, and are recorded also in pagan Anglo-Saxon cemeteries. The significance of these practices is considered in the light of other examples noted from the literature. While decapitation has been discussed recently (Clarke 1979:192–193, 372–375; MacDonald 1979:414–421) prone burial and its association with decapitation has received little comment. The study of a group from a limited area increases knowledge of both practices without, perhaps, adding to the range of possible explanations for them.

#### The sites

At Cassington several burials were examined in the early 1930s by Leeds and others, but most of the bodies were retrieved by Captain Musgrave and Miss Blackwood in 1935 during the construction of the Oxford bypass. Over 100 skeletons were found, in a cemetery of unknown size, and the remains of 72 were added to the Oxford Collection, the rest being reburied. 60 are still available, although three which were sent, in 1932, to the University of Albuquerque, New Mexico, in exchange for Pueblo Indian remains, have not been examined. Information is available from the Oxford Catalogue and from Musgrave's notes and drawings of the skeletons in the graves (Fig. 1). Only brief notes have been published, probably by Leeds (JRS 1937:237)!. In the following descriptions the skeletons are generally referred to by the numbers given in the field by Musgrave. In a few cases, where there is no field number, the Oxford Collection Catalogue number has been used. The concordance between the two systems is given in Appendix 1, p. 170.

At Radley a complete small cemetery of 35 graves was hastily excavated in 1945 by R. J. C. Atkinson, in advance of gravel digging. A report of the excavation, though not of the human remains, was published (Atkinson 1952:32–34) and most of the bones were deposited in the British Museum (Natural History). Unfortunately the bones themselves were not numbered, labelling was inadequate, and in several instances two or three skeletons are confused. While generally the posteranial bones appear to be consistent with the skulls bearing the same number, these numbers cannot be correlated with the numbered graves on the site plan, making studies of spatial distribution impossible. The remains of at least 31

people are available for study.

Recently rescue excavations have been carried out by the staff of the Oxfordshire Archaeological Unit. At Curbridge, graves containing 21 individuals, on the line of the Witney bypass, were investigated in 1975 by R. A. Chambers (1976: 38–55; 1978: 252). In 1978, at Stanton Harcourt, part of a cemetery threatened by gravel quarrying was excavated by N. McGavin. The excavation report with a brief note on the remains of the 36 individuals is published (McGavin 1981). At Queensford Mill a rapid rescue excavation of part of a very large cemetery took place in advance of gravel extraction in 1972 (Durham & Rowley 1972: 32–37). A summary of the information about the human remains has been published (Harman, Lambrick, Miles & Rowley 1978: 4–6).

Decapitated bodies were discovered in the first four cemeteries, and in three of those prone

burial also occurred.

All five cemeteries, Cassington, Radley, Stanton Harcourt, Queensford Mill and Curbridge are considered in detail, while other smaller groups from the same area but which do not contribute to the general survey of the population are considered in the comment on

burial practices.

The preservation of the bones from Cassington, Radley, Stanton Harcourt and Queensford Mill, all gravel sites, was generally good, though some from Cassington and Radley had suffered when the topsoil was stripped from the sites. The graves at Radley were shallow and many of the skulls were damaged. The skeletons at Curbridge were buried shallowly in clay and their condition varied; some were well preserved but others were badly decayed. Most of

<sup>&</sup>lt;sup>1</sup>A key to references in this form, more familiar to workers in archaeological subjects, will be found at the beginning of Appendix VI, p. 184.

the skeletons from Stanton Harcourt and Queensford Mill were reasonably complete; some from Curbridge were incomplete owing to fragility and decay; some from Cassington were complete though many were represented by the skull, pectoral and pelvic girdles and all limb bones, or only a selection from these; at Radley most of the skeletons are represented by the skull, pelvic girdle and all limb bones.

#### The populations: normal variation

Appendices I-V (pp. 170-183) show the primary information deduced about each skeleton from the five cemeteries considered.

The sex of adult individuals was decided where possible from the relevant features of the skull and pelvic girdle and from the size and ruggedness of the skeleton as a whole. The age of individuals has been assessed from the state of epiphyseal fusion and of tooth eruption, and the degree of tooth wear, based on the criteria given by Brothwell (1963: 59, 60, 69) and from the length of the diaphyses in the case of juveniles, using the chart prepared by Miss R. Powers. The height of adults has been calculated where possible from the lengths of the long-bones, using the regression formulae of Trotter and Gleser (Brothwell 1963: 102). The state of dental health is indicated by showing the incidence of caries, abscess and antemortem tooth loss. Where possible the presence of normal variations in the skeleton, such as metopism, wormian bones and vertebral anomalies, has been noted, and in the tables both these and any evidence of disease or injury are listed.

Table 1 shows the number of skeletons from each site arranged according to age and sex, and from all sites combined. At Cassington there are almost twice as many males as females, while at Queensford Mill the males are outnumbered, though less dramatically. The discrepancy at Cassington seems too great to be accounted for by the relatively small sample size; both here and at Queensford Mill it could be explained as a result of segregated burial in a partially excavated cemetery, though the spatial distribution of 53 adult burials of known

sex from the latter site does not show segregation.

It is clear that children are under-represented in all the cemeteries. At Oueensford Mill only one infant of less than a year was found, and this appeared to be a premature baby accompanying the mother, not an independent burial. This is true also of one infant from Cassington, two (possibly twins) from Curbridge, and one from Stanton Harcourt, thus reducing the number of independent infant burials by half. Infant burials are not uncommon on occupation sites, and have occurred in relatively large numbers on nearby sites such as Mount Farm, Berinsfield (Lambrick, in preparation) and Barton Court Farm, Abingdon (Miles, in press). While this may account for the deficiency of young children, the extreme paucity of burials of children under fifteen years in all cemeteries save Queensford Mill is remarkable. It is possible that infants and children buried in shallow graves may have been removed with topsoil, unknown to the excavators, but this was unlikely at Stanton Harcourt. At Queensford Mill, excavated in similar circumstances to the other cemeteries, a significantly larger proportion of child burials was found, and this seems to be a real difference between that cemetery and the others. No segregation according to age was noted at Queensford Mill. While this may have occurred at Cassington, Curbridge or Stanton Harcourt, Radley was completely excavated, and any children's corpses from that community must have been buried elsewhere.

Since neither the true proportion of child to adolescent deaths nor the age of those regarded as 'over 40' or 'over 45' is known, it is not possible to calculate average age at death, but it can be observed that of those surviving beyond the age of 20 who could be aged with more accuracy than the mere term 'adult', 69 were males and 70 females: 50% of the males survived beyond the age of 40 years, but only 40% of the females. The difference may be due to a higher female mortality during child-bearing years. Extreme tooth wear and loss and some pathological conditions suggest that some individuals survived considerably beyond the age of 40

years.

Table 1 Distribution of individuals according to age and sex.

		Age in years												
Site	Sex	0		5 1	.0 1	5	20	25	30	35	40	45 +	Adult	Total
Cassington	ď ♀ ?	<u>-</u>	- - 3	- - 1	- - -	- 1 1	3 1 -	- 2 1	4 - 1	1 2 -	1 2 -	8 5 -	25 9 -	42 22 7
	Total	-	3	1	-	2	4	3	5	3	3	13	34	71
Curbridge	♂ ♀ ?	- - -	- - 2	- - -	- - -	- - 1	1 - 1	- - -	- - -	2 1 -	- - -	2 2 3	1 2 -	6 5 7
	Total	-	2	-	-	1	2	_	-	3	-	7	3	18
Queensford Mill	ď ♀ ?	- - 1	- - 7	- - 6	- - 5	3	2 7 -	3 4 -	5 6 -	2 1 -	- 1 -	10 8 2	1 4 2	23 34 24
	Total	1	7	6	52	4	9	7	11	3	1	20	7	81
Radley	σ' φ ?	-	- -	- - -	- - -	1 1 -	1 3 -	- - -	2 - 1	- ! -	- - -	8 7 -	5 2 -	17 14 1
	Total	_	-	-	_	2	4	-	3	1	-	15	7	32
Stanton Harcourt	ď ç ?	- - -	- - 3	- - -	- - -	- 1 1	1 5 -	6 2 -	1 2 -	1 - -	- - -	5 2 -	1 3 2	15 15 6
	Total	-	3	-	-	2	6	8	3	1	-	7	6	36
All Cemeteries	♂ ♀ ?	- - 1	- 15	- - 7	- - 5	1 6 4	8 16 1	9 8 1	12 8 2	6 5 -	1 3 -	33 24 5	34 20 4	103 90 45
	Total	1	15	7	5	11	25	18	22	11	4	62	58	238

<sup>&</sup>lt;sup>2</sup>In more detail child mortality at Queensford Mill was as follows: Foetus of 7–8 months *in utero*, 1, 1–2 years, 2, 2–3 years, 1, 3 years, 2, 3–4 years, 1, 4–5 years, 1, 5–6 years, 1, 6 years, 1, 7–8 years, 3, 9–10 years, 1, 10 years, 1, 12 years, 2, 13–14 years, 2.

The average height of 62 males was  $5'6\frac{3}{4}''$  (1·70 m) and of 60 females  $5'2\frac{1}{2}''$  (1·59 m), a little shorter than the modern British averages; the female figure is biased by the large proportion of very small individuals found at Queensford Mill, where of 21 females whose height could be calculated, eight were between 4'10'' (1·47 m) and 5'0'' (1·52 m).

Several skeletal variables have been noted. The incidence of lambdoid wormian bones is high in Romano-British populations – 71% (Brothwell 1963: 96); in the five cemeteries considered here it is 51%.

At Cassington, 14 of 29 possible cases have lambdoid wormians. Two of these also have an open metopic suture, but a third with this feature has no wormian bone. Nine individuals have the right arm longer than the left, probably not noticeable during life. Three of these also have minor sacral anomalies; incomplete fusion of the first sacral vertebra, or spina bifida occulta of the sacrum. Another individual has a sacralized fifth lumbar vertebra, and another, congenital fusion of two cervical vertebrae.

At Radley, 10 of 16 possible individuals have lambdoid wormian bones, and of these three also have a wormian on the right side, in the suture between the temporal and occipital, just below asterion. This rare anomaly occurs in four of sixteen individuals in whom this part of the skull was observed. There is also one sagittal wormian bone and one case of an open metopic suture. Two vertebral anomalies occur; a sixth lumbar vertebra, and a sacralized lumbar vertebra. Atkinson notes that at Radley the graves fall into two groups, an eastern and a western group, with very slightly different orientations: he suggests that this may reflect custom, or a difference in date, or possibly family grouping, and it is unfortunate that it is no longer possible to correlate the skeletons with the graves, as anomalies of the type described might support the hypothesis of relationship.

At Curbridge, three of ten possible individuals have lambdoid wormian bones, and a fourth has an inca bone. There are four cases of open metopic sutures, two of which also

have lambdoid wormians. All the persons decapitated have open metopic sutures.

At Stanton Harcourt, 14 people have lambdoid wormian bones of a possible 21, and these include all three cases of an open metopic suture. There seems to be a correlation between the presence of lambdoid wormian bones and coffin nails; while this may suggest family relationship between those people buried in coffins, the incidence of lambdoid wormians is so high that such a conclusion may be unwarranted. There are five cases of congenital fusion of two vertebrae, usually cervical. This is a remarkable frequency of a fairly rare anomaly that tends to be familiar. Two individuals have an extra lumbar vertebra.

At Queensford Mill, in a possible 44 individuals, lambdoid wormian bones occur in 17, of whom two also have coronal wormian bones, two have sagittal wormian bones, two have inca bones and one has an open metopic suture. Two other people have inca bones, and another has a sagittal wormian bone, and in addition an open metopic suture; this occurs in another two individuals who have no other cranial anomalies. Vertebral anomalies occur in eight individuals of 40 with reasonably complete and well-preserved vertebral columns. Three have separate neural arches on the fifth lumbar vertebra; one of these also shows sacral spina bifida occulta, and a second individual showing this has a cleft neural arch on the fifth lumbar vertebra. Another person has a separate neural arch on the fourth lumbar vertebra, and cleft neural arches occur in a further two individuals, one in the first cervical vertebra, and one in the eleventh thoracic vertebra, a very unusual site. One woman had congenital fusion of two cervical vertebrae.

While it is clear from the above that some skeletal anomalies overlap others, and that their incidence varies, it is only in one instance that valuable information is provided; at Curbridge, where all three persons who had been decapitated had an open metopic suture, which strongly suggests that they were quite closely related.

Total congenital absence of the third molars occurred in four of a total of 58 complete pairs of maxillae and mandibles; four have one absent, two have both lower teeth absent, one has both uppers absent, and one has three absent. Other incomplete jaws show one or two third molars absent.

Unerupted and malpositioned upper canines occurred in one individual at Curbridge, three females at Stanton Harcourt, one of these with both upper canines affected, and one male at Queensford Mill, who also had a reduced adjacent incisor and the lower canine and last molar on the same side not developed. Generally people with unerupted canines seem to have retained the deciduous canine, and the adult teeth, though partially visible in the maxillae, did not protrude in unexpected directions and cause trouble. One female at Stanton Harcourt had retained the second lower left deciduous molar, the premolar showing no signs of having developed.

Very few postcranial bones manifested congenital variants. The femora of a young man from Cassington (14) had the angle of the femoral neck with the axis of the femur widened. On the radiograph, the bone texture was normal, so the widened angle would appear to be a congenital variant. The left arm of an elderly person from Queensford Mill (33) showed complete fusion of the lower end of the humerus with the radius and ulna. Radiographs showed absence of a joint space and revealed no evidence of infective disease. Bone trabeculae and the cortex passed without interruption across the joint and the appearances are therefore those of a congenital bony syntosis.

There was a possible case of club foot in a young adult male from Queensford Mill (7). The articular surfaces of the right calcaneus and talus showed signs of degeneration. The talus appeared to have moved forward on the calcaneus and there was some hypoplasia of the anterior portion of the calcaneus. The osteo-arthritic changes in the talo-calcaneal joint are the dominant lesion and this could be the late result of congenital talipes equino varus (club foot). Brothwell (1967) discusses an earlier and more severe case from a neolithic

longbarrow at Nether Swell, Gloucestershire.

Two cases of growth abnormalities were noted – both from Cassington. Flattening of the femoral head in an adult male (31) may be due to an old slipped epiphysis, while in E11.8.597, a woman of 40–45 years, it may be the result of either a congenital dislocation or possibly Perthes disease. Perthes disease, where the femoral head becomes fragmented, describes a condition in which a localized death of bone and cartilage cells occurs in the primary or secondary centres of ossification. It is thought to result from a defective blood supply to the affected area and may in many cases be the result of minor injury. It is often painful and if untreated osteo-arthritis is an inevitable sequel (Davies 1969).

#### Observations on pathology

Dental health is considered to have been poor in the Romano-British population, and this is comfirmed by Table 2, which shows the incidence of caries, abscess and ante-mortem tooth loss in the total number of teeth and tooth sockets seen, for different age groups, in the different cemeteries and in all cemeteries combined. While there are some striking differences in the figures for different cemeteries, the small sample size from which most of these figures are derived reduces their importance. It is clear that in most cases there is an increased deterioration in dental health with increasing age. This deterioration was often accompanied by serious periodontal disease. Some individuals had totally edentulous jaws. In some cases teeth were worn to the roots, or very unevenly worn where opposing teeth were missing. Caries had also reduced some teeth to roots.

In the rest of the skeleton the commonest findings were healed injuries and degenerative

changes.

Cuts other than those associated with decapitation occurred in one individual, Queensford Mill 59, a female of between 30 and 35 years, who had three cuts on the skull which did not appear to be recent. One small cut about 15 mm long is on the right parietal; another, about 80 mm in length, extends from the left side of the frontal to the left parietal region, lying obliquely to the sagittal line; and the third, roughly parallel to the sagittal and about 100 mm long, extends from the left parietal to the occipital. The skull has an inca bone and a lambdoid wormian, but the skeleton is otherwise unremarkable. The appearance and site of the injuries are not dissimilar to those occurring in a decapitated skull from Cassington, a man (4) whose injuries are described below.

Table 3 shows the total number of reasonably complete limb bones from adults in all cemeteries, divided into pairs and odd lefts or rights. Fractures are not common. These are all the fractures seen on visual inspection, but old well-healed fractures may not have been

recognized.

Only two, possibly three, women with healed fractures were noted. Queensford Mill 22 has an old greenstick fracture of the left radius which had healed with angulation of the distal

Table 2 Incidence of caries, abscess and ante-mortem tooth loss in teeth and tooth sockets seen, arranged according to age groups.

	Age in Years	Caries	3	Absces	SS	Loss	
Cassington	20–30	17/194	9%	08/206	4%	07/220	3%
	30-40	09/164	6%	15/203	7%	11/212	5%
	40+	24/136	18%	39/215	18%	126/313	40%
Curbridge	20-30	00/43	0%	00/47	0%	00/48	0%
	30+	09/33	27%	08/46	17%	08/61	13%
	40+	08/40	20%	02/36	6%	25/84	30%
Oueensford Mill	20–30	07/252	3%	00/286	0%	06/302	2%
<b>2</b>	30-40	35/246	14%	18/298	6%	27/326	8%
	40+	33/179	18%	59/314	16%	168/470	36%
Radley	20–30	08/82	10%	07/109	6%	03/112	3%
	30-40	23/98	23%	12/139	9%	28/168	17%
	40+	16/58	28%	20/121	17%	142/266	53%
Stanton Harcourt	20-30	26/301	9%	14/352	3%	16/392	4%
	30-40	24/91	26%	19/118	16%	06/122	5%
	40+	20/75	27%	27/121	22%	81/204	40%
All Cemeteries	20–30	58/872	7%	29/1000	3%	32/1074	3%
	30-40	100/632	16%	72/804	9%	80/889	9%
	40+	101/488	21%	147/807	18%	542/1337	41%

Table 3 Total numbers of intact adult limb bones and numbers of fractures recognized. P = pairs; S = singles.

	Cassir	Cassington		Radley Curbridge		Stanton Harcourt		Queen M:		Tot	al	Fractures	
	P	S	P	Ś	P	S	P	S	P	S	Р	S	
Clavicle	29	7	4	1	3	2	25	2	50	2	111	14	4 cases
Scapula	25	4	1	2	3	2	25	0	50	1	104	9	1?
Humerus	31	8	23	4	5	2	26	2	48	4	133	20	0
Radius	29	7	19	6	4	2	28	0	50	1	130	16	3
Ulna	24	9	22	4	5	2	27	0	51	0	129	15	2
Femur	38	6	25	3	4	3	26	1	51	1	144	14	1
Tibia	31	6	23	6	3	3	27	2	50	1	134	18	2
Fibula	21	1	19	2	3	2	25	2	50	0	118	7	3
Ribs													4 cases

end of the radius so that the wrist would have been slightly deformed. Cassington 39 has a well-healed spiral fracture of the left mid-femoral shaft. The appearance of Radley 21 suggests a healed fracture of the left scapula but this was not confirmed by the radiograph.

Seven cases of healed fractures of clavicle and ribs occur among the male skeletons, suggesting recovery from severe falls or impact blows to the chest and back. Fractures to the lower arm, particularly the left, suggest attempts to parry a blow as in fighting (although

there is little evidence from cut wounds of battle fighting). These lower arm fractures usually heal well (but see Cassington E11.8.587) with little deformity, as unless both bones are fractured, the uninjured bone acts as a splint for the injured.

Healed spiral fractures of the tibia and fibula are of the kind associated with a rotatory force—a boot or shoe gets caught in the stirrup, plough or rut in circumstances when the unshod foot would pull away or suffer lesions itself. One man, Queensford Mill 35, also had fractured his left clavicle and, more recently, his ribs. Some infective changes were present on the clavicle.

The discrepancy in the incidence of fractures between the sexes might indicate that male occupations or diversions were more likely to result in this type of injury. It is curious that most of the fractures occur on the left side. Splinting was known in ancient times but traction of fractures was not used until the 13th Century AD so that all the fractures of the lower limb, although well-healed, show some degree of angulation and overlap of the fragments causing shortening of the bone.

Bony spurs have developed at the site of a muscle attachment on the left femur of Cassington 5, a young adult male, and Radley 7, a much older male. These could be related

to injury at the muscle insertion and are sometimes associated with horse-riding.

An older male from Cassington, 27, shows a quite marked cortical thickening of the anterior shaft of the right tibia. This is the type of thickening that is associated with sub-periosteal new bone formation and could be related to repetitive minor trauma.

Osteo-arthritis is a slowly progressive condition which eventually leads to destruction of a joint. Insult to the joint from infection or injury, or increased stress from congenital anomalies, may predispose to or initiate this condition. As a result of further wear and tear on the joint surfaces further deterioration occurs, although the more flagrant manifestations of the disease may not be apparent for many years.

Severe osteo-arthritis of the hip joint with osteophytic lipping of the acetabulum and femoral head were noted in two males from Cassington, 19 and 43 (Fig. 4, p. 158; two adults from Radley, 29 and 11; and two males from Stanton Harcourt, 29 and 67. In the last case, the osteo-arthritis of the right hip is almost certainly associated with increased stress on the joint following a malunited fracture of the left tibia and fibula. Usually the right hip is more

severely affected than the left.

Injuries to the knee, in each case the right, were probably the predisposing factors leading to severe arthritis observed in two adult females, Queensford Mill 19 and Radley 22, and another old adult, Radley 32. In the case from Queensford Mill there is a small hollow in the articular surface of the medial condyle of the right femur. It could be due to osteochondritis dessecans. This is a disorder in which a small portion of bone and cartilage from the joint surface becomes detached and forms a loose body within the joint space. The condition is thought to result from defective blood supply to the affected area and may be brought about by a minor injury. Osteochondritis dessecans is seen most frequently in adolescents and young adults and usually occurs in the larger joints, especially the knee joint. It gives rise to pain and an excess of fluid in the joint space.

Recurrent dislocation of the patella may have led to the osteo-arthritis of the right knee of Radley 22. The anterior aspect of the lateral condyle is mainly affected with anterior fringe osteophytes suggesting chondromalacia patellae as a predisposing cause. This is a disorder in which degenerative changes occur in the articular cartilage covering the posterior surface of the patella (Davies 1969). The sacrum of this woman has spina bifida occulta of the first

sacral vertebra.

Spondylotic changes on the vertebrae were very common throughout the sample and there were few adult bodies in any cemetery which did not show some evidence of this condition (Table 4). Spondylosis is a result of degenerative changes in the intervertebral discs and causes abnormal movement of the vertebral bodies and increased strain on the small posterior synovial joints. Small bony outgrowths (osteophytes) and spurs appear on the margins of the vertebral bodies and extend into the adjacent ligaments and may eventually bridge the intervertebral spaces and provide some stability. At the same time osteo-arthritic

Table 4 Total numbers of adult vertebral columns, the number of those affected by osteo-arthritis being shown in brackets.

(a) 'Co Age	mplete' columi Cassington		ess than 5 ver Curbridge		Queensford Mill	Total
20-30 30-40 40+ Adult	5 (0) 2 (2) 3 (3) 2 (1)	1 (1) 1 (1) -	- - - -	8 (2) 5 (4) 5 (5)	4 (0) 6 (2) 11 (10) 3 (1)	17 (2) 14 (9) 20 (19) 5 (2)
(b) Part Age	ially complete c Cassington	-		ertebrae or mo Stanton H.	ore present) Queensford Mill	Total
20-30 30-40 40+ Adult Also 16	2 (0) - 1 (1) 5 (5) 5 sacra from Ra	_ _ _ _ dley.	2 (0) - - -	1 (1) - 1 (1) 1 (1)	4 (0) • 2 (0) 2 (2) 1 (1)	9 (1) 2 (0) 4 (4) 7 (7)

changes occur in the posterior facetal joints. In modern populations minor spondylotic changes are very common over the age of 40 but the grosser manifestations do not usually occur until the late 50s. It is thought that minor congenital anomalies may predispose to spondylosis. In the cervical spine heredity certainly plays a part in its genesis, as a familial incidence has been demonstrated. The adult male from Cassington 41 is an example of its association with a congenital anomaly. The bodies of cervical vertebrae C1 and C2 are partially fused and the laminae are completely fused.

It is clear from a consideration of these individuals, and from smaller groups of vertebrae surviving from others, that vertebral osteo-arthritis was unusual in persons of less than 30 years of age, as it occurred in this age group only at Stanton Harcourt where evidence of slight growth on some of the lower thoracic and lumbar vertebrae was noted in five individuals.

In the 30 to 40 year-old age group generally the same areas were affected, but more vertebrae were involved. At Stanton Harcourt in addition four people in this group had some degeneration and growth on the cervical vertebrae.

In those persons regarded as over 40 years of age, only one, a female from Queensford Mill (67), appears to have remained unaffected by osteo-arthritis in the vertebrae. The degree of degeneration in this age group is variable, probably reflecting the range of ages over several decades; many have slight degeneration in all parts of the column, though in general the lower thoracic and lumbar vertebrae show more moderate to severe signs and in a few individuals fusion occurs. Many cases of fusion were shown on radiography to be congenital. However, in a man from Queensford Mill (5) spondolytic growths had united the final cervical and first thoracic vertebrae and also two other upper thoracics. The body of a lower thoracic vertebra had collapsed. Two thoracic vertebrae, the third and fourth, were fused in a man from Cassington (65).

At Radley, in sixteen persons of varying ages from whom only the sacral part of the spine had been retained, one ageing female (22) seems to have had the final lumbar vertebra joined to the sacrum by bony growth, and in one man (11) the final lumbar vertebra had also been kept, as it was joined to the sacrum by osteophytic spurs and bridges.

One individual from Curbridge (13) had eburnation on the articular facets of some vertebral fragments, and an elderly man from Stanton Harcourt (16) showed moderate evidence of spondylosis on all the vertebrae, the lower part of the column being more severely affected, accompanied by some collapse of the lumbar vertebral bodies.



Fig. 2 The cranium of Radley 17 showing the probable osteosarcoma of the left parietal bone. The wormian bone in the unusual position just below asterion can also be seen.



Fig. 3. Pott's disease or spinal tuberculosis in a woman from Queensford Mill (no. 157).

Thus the general picture is one of increasing deterioration with advancing age, the lower part of the back normally being first affected. People from Stanton Harcourt seem to have suffered more and at an earlier age than those from Queensford Mill but this is only an impression based on a small number of people, although it may be related to the high frequency of congenital fusion of vertebrae.

Other cases of degenerative disease were noted in an elderly woman from Cassington (22)

and an elderly man from Oueensford Mill (30). The woman showed collapse of the body of the fifth lumbar vertebra which was probably due to osteoporosis. This is a condition in which the supporting connective tissue of bone is defective and a generalized osteoporosis is common in elderly subjects, especially women.

Paget's disease of bone is rare under the age of 40 but the incidence rises to 5% in the 6th decade and it is slightly more common in men than in women. The disease causes softening and thickening of the bone with disorganization of the trabecular pattern which takes on a spongy appearance. Clinical symptoms are not common but in its advanced form pain and deformity of the bone may be a feature of the disease. Evidence for Paget's disease is to be found in the case of the elderly man from Queensford Mill (30). Radiographically the cortex of the right radius is seen to be thickened and the trabecular pattern is coarse and disorganized. (He also has a healed fracture of the medial end of the left clavicle).

Malignant bone tumours are not commonly found in early populations so the spectacular parietal bone tumour from Radley (17) is of particular interest (Fig. 2). It ranks with the equally important, though somewhat later, osteosarcoma of the knee from the Anglo-Saxon cemetery at Standlake (Brothwell 1967). Radiographs of the Radley skull show fine spicules of bone arising from and forming a boss on the right parietal bone. There appears to be a destructive process in the skull vault but this is patchy and partly obscured by sclerosis. The inner surface and the vascular channels are normal. The changes are most probably due to sclerosing proliferative osteogenic sarcoma. This tumour is usually highly malignant, grows rapidly and early secondary blood-borne deposits in the lungs and other organs are almost inevitable in untreated cases. Differentiation from meningioma can be difficult, if not impossible. Brothwell (1961) originally described the pathology as a sarcoma but on reconsidering the evidence (Brothwell 1967) preferred to interpret the changes to the skull vault as being caused by a meningioma or angioma.

A laminar periosteal reaction at the lower end of the forearm bones of Cassington 2 arouses the suspicion of a hypertrophic pulmonary osteo-arthropathy. The changes in the lower limbs are less convincing. The bones are otherwise remarkably healthy and are presumably of a young adult. The condition is usually associated with chronic inflammatory lung diseases, congenital heart disease or intrathoracic and pleural tumours. The bones would be less robust in congenital heart disease so that a chronic infective

condition is more likely.

Very little evidence for infective bone disease was noted as is usually the case with earlier British populations. One possible case of Pott's disease or spinal tuberculosis was diagnosed in an adult woman from Queensford Mill (157) (Fig. 3). The vertebrae T9-L3 are affected and there is acute angulation in the dorso-lumbar portion of the spine, with collapse and destruction of the eleventh and twelfth thoracic vertebral bodies. Anterior buttressing is present with well consolidated new bone and some sclerosis. The condition is long-standing

and is almost certainly due to healed tuberculosis.

Rheumatoid arthritis may have been present among the people of Cassington and also Queensford Mill. It is an inflammatory disorder of connective tissue which usually commences in early adult life and shows a much higher incidence in females than in males. Common sites for its onset are the small joints of the hands and feet, which become painful, stiff and swollen. The left hip of an adult male from Cassington (43) shows flattening of the femoral head with some cystic changes and lateral drift of the head within the acetabulum. There is gross osteophytic lipping of the acetabulum and osteophytosis of the inferior margin of the femoral head with some buttressing and new bone formation in the inferior margin of the femoral neck. The appearances are those of osteo-arthritis but this could be imposed on old rheumatoid disease (Fig. 4).

An elderly adult from Queensford Mill (33) shows osteo-arthritic changes to the right shoulder, congenital fusion of the left elbow and erosion of the head of the third metacarpal.

This could be rheumatoid arthritis or gout, as the articular surface is intact.

An older adult male from Cassington (42) had survived fractures to the ribs and to his left ulna but radiographs of the ulna show that healing did not proceed normally and a chronic

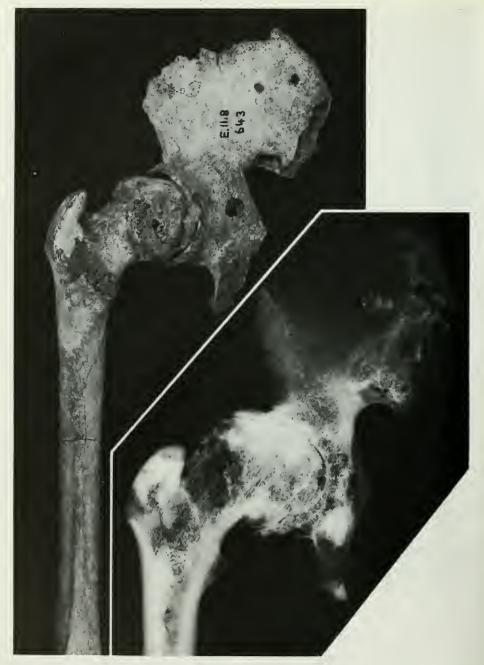


Fig. 4. Severe osteo-arthritis of the left hip in a man from Cassington (no. 43). Radiograph below.

infective process may have been involved in the cortical thickening and periosteal irregularity of the bone.

The evidence for nutritional diseases is extremely tenuous. A single femur from Radley (3) showed changes that could be due to healed rickets. There is marked bowing of the femur. Radiographs show the bone texture to be undisturbed although there is post-mortem pitting of the outer cortex. Some buttressing and remodelling had occurred on the inner border of the curve. This is unlikely to be due to physiological bowing, as the bone is usually remodelled by adult life, so a tentative diagnosis of healed rickets is suggested.

As noted elsewhere the skeletons from Radley are otherwise remarkable for the evidence

they show for survival to an old age.

In assessing a population it is useful to consider the diseases that are not found. In these upper Thames valley Romano-British cemeteries no evidence of syphilis or leprosy was found although a case of leprosy has been documented from the probably contemporaneous, though Christian, cemetery at Poundbury, Dorset (Reader 1974).

There was little bone infection present, neither osteomyelitis nor periosteitis being recorded. There was, already noted, one probable case of tuberculosis of the spine from Queensford Mill, and the significance of this case may prove to be considerable in the light of future work in the area. In the meantime it may well stand as the earliest case of tuberculosis so far recorded for Britain.

 Table 5
 Frequency of orbital osteoporosis in late Romano-British populations

6'.				
Site	No.	None	Slight	Moderate
Radley	17	12	4 (4, 11, 14/16C, 18A)	1 (120)
Cassington	32	28	4 (2, 6, 37, E11.8/587)	
Stanton Harcourt	24	22	2 (79, 104)	
Queensford Mill	49	41	8 (10, 16, 18, 31, 45, 48, 70, 178)	
Poundbury (adults)	166	125	9	32

Other diseases of poverty and overcrowding such as rickets and scurvy are also not recorded with certainty from these cemeteries. The one possible case of healed rickets from Radley (above) rests on such slender evidence that a strong diagnosis cannot be hazarded. However, mild cases of rickets have been recognized from Poundbury (Molleson, in prep.) and we may be seeing here and at Radley the first signs of deterioration in living conditions in Britain, in consequence of starvation, famine or overcrowding. It is worth recalling in this context that several of the women at Queensford Mill and one from Cassington (15) were of short stature.

No bone evidence of thallasaemia or sickle cell anaemia was recorded, although malaria was probably endemic in Britain at the time (Howe 1972). The severity of orbital and parietal osteoporosis was not great: this in marked contrast to the evidence from studies on the Romano-British population at Poundbury (Table 5). If the development of cranial osteoporosis can be taken as a response to hyperdevelopment of bone marrow consequent on chronic iron deficiency anaemia (Angel 1966; Caffey 1937) then the mildness of these conditions in the upper Thames valley populations can be taken as an indication of the generally good dietary health of the people.

#### Decapitated and prone burials

#### Distribution

Of the five cemeteries considered, four are remarkable for both the absence of child burials

Table 6 Decapitated and prone individuals from Romano-British cemetries in the upper Thames region.

Site, No.	Sex	Age	Decapitated	Prone	Position of head, cuts, other comments
	gdon ਤੋ	35–40	X		Head between legs, several cervical vertebrae attached to skull.
3 4 11 18	ham ♂ ♀	Elderly 18–25		X X X ?	
El	1.8.37 ರೆ	6 Adult	X		Skull between knees, on left side, facing left foot.
Cass	singtor	1			
597 2	о О	40–45 Elderly	X X	X	Head between knees. Head on back of legs just below knees. Atlas and axis with head. Axis shows cut.
602 4	ਹੰ ਹੰ	Adult 30-35	X X	?	Head between legs. Dog over feet. Skull on back of knees, atlas and axis with it. Cut on axis.
6	<i>ਹ</i> ੈ	Elderly	X		Head between feet, atlas and axis with skull. C3 missing. C4 shows cut.
7	₫	35+	X		Head between knees, first three cervical vertebrae with skull.
12	9	17–22	X	X	Skull resting on back of knees, face down, with first four cervical vertebrae and top portion of C5, showing cuts.
19	<i>ਹ</i> ੈ	45+		?	portion of est, showing cuts.
21	_	7–8		X	
22	φ	40+	X	X	Head between knees face up, chin towards pelvis. Atlas and axis seen on neck end.
28 32	ç ♂?	40–45	X X	X	Head between tibiae on left side.  Head between knees on right side, facing right knèe.
35	φ	Adult	?		Short grave at head end.
39	φ	Adult	37	X	** ** ***
40 44	σ <sup>*</sup>	Adult 20–25	X X	X	Head between tibiae facing up. Head between feet. C2 and 3 missing, cut on C4.
45	₫	Adult		X	
46	-	Adolescent			Grave too short for head.
47		Adult?	X	X	Skull between tibiae.
	d a	Adult		X	Left forearm across back, right across waist.
62 65		Adult		X X	
66		Adult	X	X	Skull below knees, cut on C4, C1–3 missing.
67		7 IGGIL		X	Skall below kneed, car on a 1, a 2 2 missing.
Cas.	singto	n Smith's Pit	II		
2	ð	25-35		X	
3	ď	30–45		X	

Table 6 cont.

Site, No.	Sex	Age	Decapitated	Prone	Position of head, cuts, other comments
Curb	ridge				
	?	45+	X		Skull face down between lower legs, neck towards body.
22	?	40+	X		Skull on left side between lower legs, facing knee.
30	♂?	30+	X		Skull beside right leg.
Radl	'ey				
4B	₫	30-35	X		Head between knees. Cuts on third cervical vertebra.
6		16-20	X		Head between knees. Cuts on axis.
-				X	
Stan	ton H	arcourt			
25	φ	20-25	X		
	Q	45+		X	
35	Q	30+		X	
51	₫	25-30	X		
67	₫	25–30	X	X	Cut through ventral portion of anterior articular surface of $C - slightly$ oblique.
Wro	xton-S	St-Mary			
1	φ	Adult	X		Skull between thighs, face down, chin towards feet. C1 and C2 with skull.
2	<i>ਹੈ</i>	Adult		X	Left arm raised against edge of grave.

and the presence of decapitated burials, prone burials also occurring in three of them. Table 6 shows the circumstances of the decapitated and prone burials at these cemeteries and four others in the vicinity.

At Cassington Captain Musgrave's notebooks record sixteen decapitations, confirmed in several cases by the discovery of cut vertebrae with the skeleton; some of these are still extant, but cervical vertebrae are missing from eight of the decapitated bodies (2, 6, 7, 12, 22, 40, 44 and 66). In the case of 2, 6, and 12 these are recorded in the Oxford Collection Catalogue as having cuts on them; it seems not unlikely that somewhere there is a small hoard of these cervical vertebrae. There were fourteen recorded prone burials at Cassington and a further two possible ones; in seven cases decapitated people were buried prone (Fig. 1, p. 146).

At Radley two decapitations and one prone burial were recorded, all buried quite close to each other. While the decapitated burials 10 and 14 may be identified with the bodies 4B and 6, both of which have cuts on cervical vertebrae, it is not possible to identify the person buried prone.

No prone burials were noted at Curbridge but it is at this cemetery that relationship between the three who were decapitated may be postulated, since they also shared the uncommon feature of an open metopic suture. In all, this variant occurred in four of ten individuals in this cemetery. As the group is small the question of kinship must be treated with caution.

At Stanton Harcourt there were three instances of decapitation, one of which was also a prone burial, and two other prone burials, all fairly close to each other.

Two individuals show cuts which may be associated with decapitation on bones other than

vertebrae; Cassington 4, a decapitated man, had two cuts on the left parietal, on a line running approximately from the junction of the sphenoid with the parietal to lambda, but not extending the full length of this line. There is some similarity between these injuries and those inflicted on a woman from Queensford Mill (59) who was not decapitated. There are also three cuts on the right side of the mandible, one on the ascending ramus, cutting into the anterior margin below the coronoid process, and possibly also the cause of the loss of the third molar crown; one long cut extending almost from the sagittal line just below the mental foramen to just below the second molar, and one slicing a small portion off the inferior margin of the horizontal ramus. Stanton Harcourt 67, also a decapitated man, had a sliver of bone cut off the inferior margin of the right horizontal ramus of the mandible, very similar to the case at Cassington, and in addition a small portion of the right gonion of the mandible had been removed.

The only cemetery in the immediate vicinity of those described above in which decapitation is recorded is the one partially excavated at the Ashville Trading Estate, Abingdon (Parrington 1978:23, 25, 36–78; Edwards 1978:92). Here eleven graves discovered in foundation trenches were investigated, two only being fully excavated, so that the skeletal material recovered was restricted. Edwards, in his report on the human remains, identified three females and six males, of ages varying from late adolescence to considerably over 40 years, and one child of between 6 and 8 years. One male of between 35 and 40 years of age was found with the head placed between the legs and several cervical vertebrae still attached to the skull.

Bloxham, only twenty miles north of this group and just within the upper Thames basin, is similar in several respects. Most of the burials were rescued during ironstone working in the 1930s, some bodies being recovered complete, while some were partially recovered and some recorded from the testimony of the workmen. A total of 30 graves is believed to have been found, 24 recorded by Knight (1938:41-56) and a further six by Musgrave (ms. notes). Buxton (1938: 46-47) reported on the skeletons retrieved; altogether four females and nine males were recorded, varying in age from 'young' to 'elderly'. Three, possibly four, were buried prone; of these, one was male, one female and two of undetermined sex. Musgrave recorded one adult male with skull between the knees, facing the left foot. No child graves are mentioned but the occupants of half the graves are not described, and in a lengthy salvage operation of this sort they may have been missed. The decapitated male should be in the Oxford Collection (E.11.8.376) but was not found; four others are recorded in the Oxford Collection Catalogue (E.11.8.581-584), of which only the last three were found; these may be from Knight's excavations. Bloxham IV was a female of 18-23 years, Bloxham VIII a male over 40 years, with evidence of osteo-arthritis in the vertebral column and shoulders, and, according to the catalogue, a 'remarkable pathological condition' of the right foot, which is now missing. The last from Bloxham, unnumbered, was a young person, possibly female, notable for a wormian bone just below the right asterion, very similar to those seen at Radley. It is curious that Buxton did not mention the 'remarkable pathological condition' of VIII in his report, but he has noted that Bloxham V had a Pott's fracture of the right tibia, so possibly there has been some confusion in the numbering.

At Wroxton-St-Mary, near Bloxham, part of a cemetery was excavated in 1980. At least four burials had been disturbed prior to the excavation which yielded a further four, including a woman with her head between her thighs and a man buried prone (Chambers, in preparation).

At Cassington Smith's Pit II, three adult burials were recorded south of the bypass in 1950, probably connected with the cemetery excavated in the 1930s. Two of these, both males, were buried prone.

The evidence from the above cemeteries shows that decapitation and prone burial were not uncommon in the upper Thames area in late Romano-British times, and the coincidence of the two not only in the same cemeteries but also occasionally in the same individual suggests that the two practices are connected. Study of the individuals concerned provides no explanation on osteological grounds for these forms of burial; both sexes and adults of all



Fig. 5 Cemeteries of the Romano-British and Anglo-Saxon periods containing decapitated and prone burials. ▲ decapitated burials, ▼ prone burials.

ages have been treated thus. Two adolescents, from Cassington and Radley, were decapitated, while the only child over a year in age from Cassington was buried prone, with the arms flung out in an attitude of supplication. Those who had been decapitated at Curbridge may have been related. The virtual absence of children from these cemeteries suggests that they were perhaps not the cemeteries of a normal civilian population, or were used by a particular section of the community.

Both decapitated and prone burials are recorded at other Roman sites, most of them late, in England and both practices occur in Anglo-Saxon cemeteries. Some are recorded only as isolated burials, while others occur in small groups or large cemeteries. Appendix VI (p. 184) is a gazetteer of known instances with references. Regrettably few of these have been

published in sufficient detail to make a useful comparison with the cemeteries already considered, but some show common features. In the following discussion the distinction between Romano-British and Anglo-Saxon sites is generally ignored, nor has any attempt been made to consider these examples within a more refined chronological scheme. The distribution of sites is shown on the map, Fig. 5, p. 163.

#### Nature of the cemeteries

Most of the cemeteries in which these burials occur appear to be normal civilian ones, containing people of both sexes and all ages, but there are some which are unusual. Winchester has a high proportion of infant and child inhumations; at Alcester 10 infants were buried in the same area as the decapitated girl; at Sawbridgeworth most of the burials were of females. At Helmingham they were allegedly all male, including the children, but at this site other mutilations were noted and it was suggested that the bodies had been buried after a skirmish or massacre, though the report of 'several hundred' bodies, apparently buried in order, might argue against this. Springhead seems to be a site of special character; the decapitation of infants is rare and the placing of pairs of infant burials in successive floors of a religious structure, one decapitated and one not, each in opposing corners, may be explained as sacrificial, similar to foundation sacrifices, which are often those of infants.

Several sites associated with earlier barrows or other earthworks are distinctive. At Walkington Wold, published in detail, there were remains of 12 people buried randomly around a Bronze Age barrow; 10 of them were decapitated, the skulls found separately from the bodies, the mandibles of several being detached from the skulls. All but one were male: some were simultaneous burials, but there was evidence of some graves cutting into others. Some had cuts other than those on the cervical vertebrae. The excavators favoured the explanation that the mound was an execution site, possibly the site of a gibbet, and the remains of those who were punished had been buried around the barrow. Wor Barrow is a very similar site: 17 secondary burials, almost entirely males, two with their heads buried by their femora, eight with heads missing, one buried prone. Rushton, where 24 secondary burials, all decapitated, occurred beside an earlier Romano-British barrow, might be regarded as an execution site, but the burial of males, females and children in two rows seems more akin to a normal civilian cemetery.

Possible execution sites occur also in the Anglo-Saxon period. At Dunstable there were 94 secondary burials, some simultaneous, in a Bronze Age barrow, mostly males and many with their arm bones in a position suggesting that their wrists were tied; three were prone and two headless. At Meon Hill and Roche Court Down there were respectively 10 and 18 secondary burials in ditches, almost entirely adult males. Some have their wrists tied, often behind the back, and there is a high proportion of decapitated and some prone burials. Cuddesdon is a curious site, unique in having 'several' burials, all prone, and arranged radially, feet to the centre, possibly originally associated with a barrow. Tied wrists occur in other cemeteries, including some in which neither decapitated nor prone burials appear. One such is Old Sarum, where tied wrists were noted in all 14 secondary burials, mostly men of mature years (Meaney 1964: 275). Thetford, where 'about fifty' decapitated skeletons were found, is reminiscent of Rushton: it is unfortunate that no further information is available for either of these sites. Little Wilbraham seems to have a preponderance of male burials.

All the above sites, known to have peculiar characteristics, are perhaps not directly comparable with the others considered in this paper, many of which appear to be normal civilian cemeteries, though others are isolated burials or scantily recorded.

#### The decapitated burials

Both males and females have been beheaded and though adults are usually in the majority in cemeteries, decapitated children seem to be disproportionately few. Apart from those at Rushton, they are recorded at Sea Mills, Lankhills, Dunstable, Leicester, Great Casterton and possibly Alcester (a young girl). At Leicester the skull was between the femora, and at

Sea Mills upon the pelvis, both unusual positions. Children are more rarely found buried

prone; this is recorded at Cassington and Lankhills.

The position of the detached head in the grave is normally towards the lower end. In 101 cases where the position is recorded, it was between the lower legs or feet in 38 cases, beside them in 28, near the feet or lower legs in 11, beside or between the femora in 10. The skull was found on the pelvis at Guilden Morden, Sea Mills, Brighthampton and Loveden Hill, and beside it at Lord's Bridge. At Roche Court Down several unusual positions occurred: on the chest, by the arms, and near the neck. The severed head was replaced in its correct anatomical position in two instances at Meon Hill, also at Portsdown, at Guilden Morden, and at Helmingham, though at the last site it may be the restoration to normal appearance of a body mutilated through misfortune. If heads deliberately severed in 'normal' circumstances were often buried in their correct anatomical position, the number of decapitations recognized would be reduced due to poor bone preservation in some soils.

Other portions of the body have occasionally been detached. At Kimmeridge the deliberate removal of the mandible from the severed head and from the second burial is postulated, while one of the burials at Dunstable had not only the head removed and placed between the thighs, but also the lower legs cut off and buried beside the upper arms. Another body at Dunstable with the left leg shortened by a malunited fracture had the foot of the right leg removed at the ankle as if to even up the length, the foot being buried with the body. At Wor Barrow the feet and lower part of the tibiae of an adult male had been cut off. At Tripontium the skeleton of a young woman who retained her head was found with the last thoracic, all lumbar vertebrae and sacrum, both legs below the knee and the left arm missing. At Helmingham a lower arm, and an arm and leg had been severed in two individuals. Finally at Aldwick le Street, Yorkshire, in the chance discovery of four burials during the digging of service trenches, one was found with the feet and left hand cut off (Dolby 1970: 252–3). These bizarre examples are not, apparently, the result of disturbance to the graves.

Injuries to the skull are recorded at Cassington (described above), at Uffington, where two men had 'cleft skulls', at Brighthampton and Burwell, and at Roche Court Down where one has a cut across the left orbit. Guilden Morden B3 and Roche Court Down 15 had cuts across the right mastoid process, which was shorn off in the latter case. The right side of the mandible showed cuts in the individuals Cassington 4 and Stanton Harcourt 67 as described above, and also Lankhills 379, Portsdown, and five people from Roche Court Down. Wroxton St Mary 1 has a probable cut on the left side of the mandible. Lambourn had damage to the left scapula, Cogenhoe and Meon Hill 7 had cuts on the right clavicle. The vertebrae involved in the removal of the head are shown in Table 7. In some cases such as Lambourn, Manton Down, Radley 4B and Meon Hill 1, there is evidence of more than one stroke. Clarke (1979: 193) avers that at Lankhills 'the precise severing of the heads between the third and fourth vertebrae ... points to a well-defined ritual'; this on the basis of four skeletons on which Watt (1979: 342-4) noticed lesions on the inferior aspect of the third cervical vertebrae or on the superior aspect of the fourth. Lankhills 451, however, had the first four vertebrae buried with the head, in good condition and with no noticeable damage, suggesting a very neat cut between the fourth and fifth (or below, with subsequent tidying of the stump!). Poundbury 1425 had the first five cervical vertebrae with the head. The sixth and seventh vertebrae are missing. The first thoracic vertebra has a horizontal cut on its superior aspect and a small slice has been removed from the right first rib. This is a remarkably low place at which to sever the neck.

It is clear from Table 7 that normally the upper part of the neck was severed, but the vertebrae involved vary. The occurrence of cuts in a similar position both at Lankhills and at Roche Court Down may perhaps be attributed to skill rather than to defined ritual, though cuts into other bones at these and other sites, and evidence of several blows, suggest a lack of precision in the operation on some occasions. It would appear, from damage to vertebral bodies and processes which does not extend to the dorsal surface, that the blow was generally delivered from the front; this is suggested also at Dunstable. Damage to the right side of the

Table 7 Cuts recorded on vertebrae, affecting single vertebrae or passing between two vertebrae.

Vertebrae involved	Site and skeleton number
C2	Cassington 2, 4; Radley 6; Cogenhoe; Kimmeridge; Roche Court Down 18
C2 & 3	Roche Court Down 6, 8, 10, 15
C3	Radley 4B; Stanton Harcourt 67; Lankhills 379, 427; Meon Hill 7; Mundford 6; Portsdown
C3 & 4	Girton; Roche Court Down 17; Todbere
C4	Cassington 6, 44, 66; Lankhills 441, 445
C4 & 5	Meon Hill 5, 6; Woodyates
C5	Cassington 12
C5 & 6	Meon Hill 9
C6	Guilden Morden A2, A8; Manton Down
C7	_
C5,6&7	Meon Hill 1
T1&R1	Poundbury 1425

vertebrae, skull and mandible suggest that in some cases blows were directed from the right, and a few cases suggest blows from the left. Tildesley (1932:583–599), writing of Roche Court Down, felt that the necks were severed from the back, while the body was upright, but there is no real evidence as to whether the person whose head was removed was lying on the ground, supine or on one side, or placed against an upright. There is also no clue to indicate whether beheading is the cause of death or a post-mortem mutilation.

#### **Dating**

The connection between decapitated and prone burial already noted in the Oxford group of cemeteries is apparent also in others, again occasionally in the same individual as at Lankhills, Margidunum and possibly Guilden Morden. Prone burials have also been found in cemeteries not known to contain decapitations, as at Baldock, Owslebury, Cirencester and several Anglo-Saxon sites. The distribution of both types of burial is concentrated in the midlands and the south. Most of them are late Romano-British, though some cannot be so precisely dated, and some, such as Cuxton, are considered to be early; there are also Anglo-Saxon examples, some as late as the seventh century. Though, as Clarke suggests, they appear to be more common on rural sites, several occur in cemeteries outside small towns, and some have been found at the major urban centres, but both the distribution and any apparent emphasis on rural communities may simply reflect the incidence of cemeteries and isolated burials which have been recorded. One late Iron Age burial of a young man from Old Down Farm, Andover, may foreshadow the practice of decapitation: there were a number of slashes and stabs on the back of the torso, and the cervical vertebrae had been cut through, though the head was buried in the correct anatomical position (S. Davies, in preparation). The burial did not appear peculiar in any other way.

There are at least 144 examples of decapitated burial from Romano-British contexts and at least 69 prone burials. From Anglo-Saxon cemeteries the minimum totals are 29 (excluding 50 decapitated burials from Thetford) and 33 respectively.  $\chi^2$  tests suggest that there probably is a significant difference between the proportions of decapitated and prone burials in Romano-British and Anglo-Saxon times, prone burials becoming relatively more important during the Anglo-Saxon period. However, if Thetford is included in the analyses there is no

significant difference.

#### Discussion

Reasons for decapitation, other than execution and massacre, have been suggested by several

authors, Calkin (1947), writing of Kimmeridge where the mandible was also separated, suggests the prevention of communication from the dead, otherwise respected and buried with care. Lethbridge (1936), in the report on Guilden Morden, and Dewar (1961), considering Charlton Mackrell, both support the idea that it was to prevent the dead from walking. Liversidge (1977: 35) states that 'decapitation of a corpse is a well-known way of laying a ghost' and Keyser (1854: 305, 307) says that the old Scandinavians, if the dead appeared as a spectre, opened the burial mound, cut off the head, and laid it between the legs. Clarke (1979) has observed at Lankhills a convincing connection with graves which were military, rich, or 'ritually unusual'. One (400) was a cenotaph, and one (447) a group of jumbled bones possibly buried in a bag, perhaps retrieved from an alien burial place. A young man (443) had two decapitated women buried above him, one simultaneously, the other, who was also prone, being added later. Another possible association between decapitated and prone burial occurs in adjacent graves 378 and 379 and it is clear from the cemetery plan that, except for 120 (the only decapitated child), both forms of burial are restricted to the eastern part of the area excavated. His contention that at Lankhills decapitations are sacrificial may hold, though amongst his reasons are the 'care with which the operation had been performed' and signs of coercion of living victims. The position of 451 in the grave may suggest twisted arms, but the cut mandible of 379, in conjunction with similar injuries observed elsewhere, is perhaps the result of a badly aimed cleaver rather than brutal persuasion. MacDonald (1979), in a lengthier consideration of the decapitations, discusses the possibility that they were 'expendable' members of the community: children, old women, criminals and prisoners of war. In view of the association with military burials, he favours the idea that the decapitated persons were sacrificed. They would have been substitutes for slain men or boys whose bodies were not recovered, and who were otherwise condemned to wander as spirits after death, prevented from entering into life in the next world.

It is suggested that since the soul was thought to reside in the head, the removal of it in a particular way might transfer its immortality to another person, and thus the burials at Springhead might be not only normal foundation burials but an attempt to bestow immortality upon the structure itself. In at least two instances at Lankhills the decapitated body was buried later than the person with whom it was associated, so that perhaps it constituted an offering to a semi-divine departed. Difficulty arises over the presence of hobnails with two of the decapitated burials. If deprived of their souls, either as substitutes or offerings, the dead would not require shoes in after life, though perhaps their bodies returned like automatons to the gods who owned them. Alternatively this was simply the consequence of confused thinking over an old custom. Of particular interest is the observation that earlier literary evidence describes the necessity of a living victim, so that first the throat was slit and then the head removed. The probability of the head being regarded as the seat of the soul relates the decapitated burials of the south to the cult of heads for which evidence occurs more commonly in the north and west, and which has been discussed at length by Ross (1967).

Prone burial is recorded in more individuals in the Romano-British period, but occurs in more cemeteries in the Anglo-Saxon period. It is less commonly discussed than decapitated burial, and the connection between the two has not been commented on before now. The number of prone burials now recorded, and their circumstances, no longer permits the acceptance of Rolleston's (1870: 477) explanation of insobriety on the part of the coffin or bier bearers. Nor can they all be accounted for as a result of personal idiosyncracy, as is recorded of Mary McLeod, the seventeenth century bardess, who directed that she should be laid prone in her grave (Watson 1934: xix). Hawkes & Wells (1975) have discussed the examples from Worthy Park, both females, and regard them as burials of criminals, possibly buried alive, possibly killed previously, perhaps by drowning. The burial of persons who may have been alive is noted also at Camerton and at Sewerby. Some prone burials, generally of females, may be explained as sacrificial, as at Sewerby, where an adult female lay prone above the coffined burial of another female with rich grave goods, and at Mitcham, where

again a female lay prone above a simultaneous burial, probably also of a female. These burials, which have features in common with the decapitated burials at Lankhills, are the subject of a study by Hirst (forthcoming).

Some prone burials are described as careless, as at Baldock, Elloughton and Farthing Down where they were 'thrown in', at Owslebury 'carelessly laid out' and another at Mitcham 'carelessly thrown in'. Some are doubled up, or sprawling. On the other hand others, as at Worthy Park, are 'carefully laid out' or, at Little Wilbraham, 'deposited with much apparent care'. So although some may be the result of hasty and careless burial, not all can be explained in this way. Perhaps it is possible that, as with decapitation, prone burial may have occurred to prevent a ghost from walking; to confound the aspiring spirit and encourage it to enter deeper into the earth instead of rising to the surface.

In the absence of rich or military burials in most cemeteries, particularly of the late Romano-British period, associations of the type described at Lankhills have not often been observed. Perhaps Lankhills and the possible Anglo-Saxon sacrificial sites are special cases in the same way that sites such as Springhead and the 'execution' cemeteries such as Walkington Wold, Wor Barrow and Roche Court Down seem to be. At all these sites, however, the idea of the deprivation of the soul is a plausible reason for such treatment, whether as a sacrifice or as a punishment. Isolated burials, poorly recorded early excavations and inadequately published recent ones reduce the number of examples which can be usefully discussed. There remains a group of cemeteries, however, which contain some decapitated or prone burials, or both, and which have either the appearance of being normal civilian cemeteries, or are curious on account of the absence of child burials. It is possible that these were criminals buried in the community cemetery, as may be the case at Worthy Park, but to regard all in this light might lead to an unacceptably high proportion of criminals in the general population.

Both prone burial and decapitation could be merely a final form of indignity inflicted on the corpse of an individual in consequence of particular characteristics or offences during life. But it seems more probable that both were believed to have some effect on the subject in an after life. There seems to be no explanation, however, for the choice of individuals who were treated in this way. Further evidence suggesting reasons for both practices may emerge through full publication of more of the cemeteries in which they have been noted, or through

further excavations with detailed osteological reports.

Did C. L. Dodgson, yarning on the Thames at Oxford while colleagues delved in pits and barrows, also preserve some vestige of the past in the Queen of Hearts' peremptory commands?

#### Acknowledgements

The report on Cassington was originally undertaken for Mr P. D. C. Brown of the Ashmolean Museum, Oxford, and he has given valuable assistance in making the notes of Captain Musgrave available, in discussing the Cassington burials and drawing our attention to several further examples of decapitation. Professor M. Todd of the Department of Archaeology, University of Exeter, kindly lent his own list of decapitated burials, many of which were new to us. We are grateful also to Mr T. G. Hassall and Miss Gwen Oakley of the Oxfordshire Archaeological Unit for assistance over Stanton Harcourt. Mr R. A. Chambers (Oxfordshire Archaeological Unit), Miss S. Davies (Wessex Archaeological Committe), Mr C. Green (Dorsetshire Excavation Committee), Miss H. Wheeler (Trent Valley Archaeological Research Committee) and Mr J. Williams (Northampton Development Corporation) gave permission to refer to unpublished material from the sites at Wroxton St Mary, Andover, Poundbury, Derby and Duston. Miss M. I. E. Steel kindly drew our attention to the expressed wish of Mary Macleod.

#### References

Angel, J. L. 1966. Porotic hyperostosis, anaemias, malarias and the marshes in prehistoric eastern Mediterranean. Science, N.Y., 153: 760-762.

Atkinson, R. J. C. 1952. Excavations in Barrow Hills Field, Radley, Berks. Oxoniensia, 17: 32-35.

Brothwell, D. R. 1961. The palaeopathology of early British man: an essay on the problems of diagnosis and analysis. *Jl R. anthrop. Inst.*, London, 91:318.

— 1963. Digging up Bones. xiii + 194 pp., 17 pls. London.

—— 1967. The evidence for neoplasms. In Brothwell, D. R. & Sandison, A. T. (eds). Diseases in Antiquity: 320-345. Springfield.

Buxton, D. 1938. Report on the human remains. In Knight, W. E. J., A Romano-British site at Bloxham, Oxon. Oxoniensia, 2: 46-47.

Caffey, J. 1937. The skeletal changes in chronic haemolytic anaemias. Amer. J. Roentgenol., New York, 37:3.

Calkin, J. B. 1947. Two Romano-British burials at Kimmeridge. *Proc. Dorset nat. Hist. archaeol.* Soc., Dorchester, 69:33–41.

Chambers, R. A. 1976. A Romano-British settlement at Curbridge. Oxoniensia, 41: 38-55.

1978. Two Radio-carbon dates from the Romano-British Cemetery and Settlement at Curbridge, Oxon, Oxoniensia, 43: 252.

Clarke, G. 1979. Pre-Roman and Roman Winchester. Part II. The Roman cemetery at Lankhills. Oxford, 468 pp.

Davies, P. M. 1969, Medical terminology in hospital practice. London, 351 pp.

Dewar, H. S. L. 1958. Replies, 159. Romano-British cemetery at Charlton Mackrell. *Notes & Quer., Somerset Dorset*, Sherborne, 27: 206–207.

Dolby, M. J. 1970. Roman Remains from Aldwick le Street, West Riding. Yorks. archaeol. J., Leeds, 42:252-253.

Durham, B. & Rowley, T. 1972. A cemetery site at Queensford Mill, Dorchester. Oxoniensia, 37: 32-37.

Edwards, M. 1978. Human Remains. In Parrington, M. 1978 (q.v.).

Harman, M., Lambrick, G., Miles, D. & Rowley, T. 1978. Roman burials around Dorchester-on-Thames. Oxoniensia, 43: 1-16.

Hawkes, S. C. & Wells, C. 1975. Crime and punishment in an Anglo-Saxon cemetery? *Antiquity*, Gloucester, 49:118-122.

Howe, G. M. 1972. Man, Environment and Disease in Britain. 302 pp. Pelican Books, London.

Keyser, J. R. 1854. The Religion of the Northmen, London.

Knight, W. E. J. 1938. A Romano-British site at Bloxham, Oxon. Oxoniensia, 2:41-56.

Lethbridge, T. C. 1936. Excavations at Guilden Morden. Proc. Camb. antiqu. Soc., 36: 109-120.

Liversidge, J. 1977. Roman burials in the Cambridge area. *Proc. Camb. antiqu. Soc.*, 67: 11–38.

MacDonald, J. L. 1979, In Clarke, G. 1979 (q.v.).

McGavin, N. 1981. A Roman cemetery and trackway at Stanton Harcourt. Oxoniensia, 45: 112-123.

Meaney, A. L. S. 1964. A gazetteer of Early Anglo-Saxon burial sites. 304 pp. London.

Miles, D. (in press). Archaeology at Barton Court Farm, Abingdon, Oxon. Res. Rep. Council Br. Archaeol., London.

Musgrave, Captain [1935]. Manuscript notebooks, in Ashmolean Museum, Oxford.

Parrington, M. 1978. The Excavation of an Iron Age Settlement, Bronze Age ring ditches and Roman features at Ashville Trading Estate, Abingdon, 1974-76. Res. Rep. Council Br. Archaeol., London, 28:1-139.

Reader, R. 1974. New evidence for the antiquity of leprosy in early Britain. *Jl archaeol. Sci.*, London, 1:205-207.

Rolleston, G. 1870. Excavations in an ancient cemetery at Frilford, Berks. Archaeologia, London, 42:417-485.

Ross, A. 1967. Pagan Celtic Britain. 433 pp. London.

Tildesley, M. L. 1932. Report on the human remains. In Stone, J. F. S., Saxon interments at Roche Court Down, Winterslow. Wilts. archaeol. nat. Hist. Mag., Devizes, 45: 568-599.

Watson, J. C. 1934. Gaelic Songs of Mary MacLeod. xxxiv + 158 pp. Glasgow.

Watt, R. 1979. In Clarke, G. 1979 (q.v.).

00	
ngto	
assi	
ű	
rom	
ls fr	
ia	
Вш	

Other comments	Healed fracture of left ulna.	Now in New Mexico. Now in New Mexico.		Osteo-arthritis in right hip. Perthes disease of the femoral	head? Healed fractures of both clavicles.	Bronchial carcinoma?	Fifth lumbar vertebra is	sacralized.  Buried with dog. Now in	One coronal wormian bone. Sword?	cuts on skull and mandible.  Exostosis on femoral shaft.		
Oxford Coll. number: E.11.8:-	587	588 589 593	594	596 597	598 599	600 600a 600b 601	602	(602)	603	604	605	909
Orientation	SW	SW NW				SW NE	N N		NE	Ν̈́	N	SE
Decapitated				×		×		×	×		×	×
Prone						×			٠.			
Cranial index	16.7	9.18		74.6	73·3		78.5		80.4	74.6	73.0	74.9
Longer right arm												
Lambdoid wormians	0	1 1 %	1	0	10	0	2	I	=	0	4	3
Vertebral osteo-arthritis	×	×		×								
Loss	00/28	01/28		00/16 00/15	06/32	05/32 00/15 01/16 09/14	03/28		05/32	00/29	23/24	91/90
Abscess	01/28	01/27		00/16 01/15	01/26	00/27 00/15 01/15 02/04	04/28		03/28	67/00	10/00	03/12
Caries	01/25	00/11		00/11	91/00	03/25 00/13 02/14 -	04/25		02/23	00/29	ı	00/03
Height	5'63''	5/31/ 5/31/ 1.60 m	5.5"	5.2½" 1.59 m	5′8′′ 1.72 m	S.11.	1.56 m 5′6″ 1.68 m	00 1	5'10'''	5′6½′′ 1.66	5.71	5′4¼″ 5′4¼″ 1·63 m
Age	30–35	Adult Adult 35–40	Adult	30-35 40-45	Adult 45+	40-45 30-35 25-30 Aged	25–30	Adult	30-35	20-25	Aged	35+
Sex	ъ́	50 50 O+	<b>5</b> 0	\$0 \$	o" o"	でくらくな	0+	<b>5</b> 0	"О	3.5	ъ	<b>5</b> 0
Z o						1 1 B 2 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	33		4	2	9	7

		C2 and C3 fused congenitally. First sacral vertebra is separate.	Osteo-arthritis on radius.	Parts of two skulls and skeletons – confusion in	Buried very close to 19.	communancous burnar, Osteo-arthritis in right hip.		Metopic. Osteoporosis of the 5th	numbar vertebra. Osteo-arthritis in right ankle.	First sacral vertebra not	completely joined.	Cortical thickening of right	libia and libula.			Infant buried with adult. Osteo-arthritis in both hips.	riaticiicu icinolai ileau.	
608	609	611 612	613	614 616	615 617	619	620	621 622	623	624	625 626	627	628	629	630	630 631		635
×	SW	SW	≥	NE	×	SE	N N	SW			ш	SW	NE	SW	*	SW	Z	$\lesssim Z$
	×							×					×				×	٠.
	×					٠,		××									×	
76-9	78.9	76.3	74.3			6.07		77.8			77.8	74.3	75.1		82-3			
		×								×	×	×	×					×
0	10	0	0	1 1	0 1	+	1	0	1	I	1 9	_	0	1	-	1 1	1	1 1 1
		×				×	×	×	×		×	×				×		
01/32 08/13	00/32	08/14 00/32	03/29	00/24 00/12	07/11	10/16		12/32			13/25	12/30	03/14		03/32			
00/31	00/32	04/06 00/32	92/90	00/18 00/12	00/04	90/00		03/21			02/11	14/25	00/11		03/31			
00/28	01/32	01/01 02/31	05/24	02/16 00/02	1	00/03		07/20			02/11	04/12	03/10		02/20			
	5'41"	5.51"	4′9″ 1.45 m	<b>E</b>		5'54"	5′2½′′ 5′2½′′ 1.50 m	5′4½″ 5′4½″	5′8′′ 5′8′′	5'4" 5'4"	1.60 m 5′1′′ 1.66 m	1.55 m 5'6½''	1.69 m 5′0³′′	1.54 m 4′11³″ 1.52 m	5′13′′ 5′13′′ 1.57 m	5.7½" 5.7½"	E 1/.1	5′5¾′′ 1·67 m
30–35 Aged	Adult 17–22	Aged 20–25	30-40	20–25 40–45	Aged under 1	45+	Adult	7-8 40+	Adult	Adult	Adult 45+	45+	40-45	Adult	25–30	neonatal Adult	Adult	Adult Adult
Q .5	**O O+	ر. م. م.	0+	م م ب	0, 0,	ъ	0+	↔ ↔	ď	0+	O+ O+	<b>*</b> 0	0+	0+	0+	o* •>>	9.3	<b>5</b> 0 O+
8 01	12	13	15	2×	17	61	20	21 22	23	24	25 26	27	28	29	30	30	32	35

Other comments		Metopic.	Healed fracture of left femur.	Lesion on left tibia. Congenital	tusion of C1 & C2. Metopic, Healed fractures of three	osteo-arthritis in left hip,	Imposed on old rneumatoid?					Osteo-arthritis on shoulders and	sacrum. Fused 13 & 14; spondylosis. Partial sacral spina bifida	occulta.
Oxford Coll. -:8.11.8:-	636	637	639 640	641	642	643	644		648	651	652 653	664 665	999	
Orientation	N X	NE	шш	*	NE	SW	NE	≱ Zz:	ZZ	N E	≥	≽≽z		
Decapitated			×				×	×					×	
Prone			×				×	×	××			× ×	×	×
Cranial index	81.3	74.9			73.0							78.2		
Longer right arm	~				×		×						×	
Lambdoid wormians	0	Ξ	1 1	1	**	1	<del>4</del>	1 1	1 1	1 1	i i 1	- 5 -	1	1
Vertebral osteo-arthritis		×	×	×	×	×				×		×		
Loss	00/32	01/32			01/11		60/00					03/14		
Abscess	00/32	04/32			02/10	`	20/00					04/22		
Caries	05/30	01/29			20/00		01/04					03/14		
Height	5'41"	5′4½′′ 1.63 m	5′7½′′ 5′7½′′ 1.771	5.51.	5′8½′′	1.73 m 5.7½'''	5′6½′′ 1.60 m	nt of m		5'61"	m 60.1	5'71''	5.73" 5.73"	III 7/ I
νβc	20-25	35-40	Adult Adult	Adult	45+	Adult	20-25	Adult Adolescent	Adult	Adult	Adult Adult Adult	Adult 45+ Adult	Adult	
Sex	0+	ზ	O+ O+	ъ	ъ	ъ	"О	o e o o	~· % (	O+ O+	0,000	つ つ つ	"ం	٠
c Z	36	37	39	41	42	43	44	45	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	51	52 53 61	62	99	29

	is information derived from the Oxford Collection Catalogue and the excavator's notes: those skeletons which have no Oxford Collection be no longer extant.  34 possible there is some disagreement over the sex of individuals:  This paper  Oxf. Coll. Catalogue  Excavator's notes  of  of  of  of  of  of  of  of  of  o
E SW SW SE	alogue and the excavator's notes: those sl dividuals: Oxf. Coll. Catalogue
	s information derived from the Oxford Collection Catalogue and be no longer extant.  34 possible there is some disagreement over the sex of individuals:  This paper  9?  6?
68 & Adult 69 & Adult 70 & Adult 71 & Adult 72 & Adult	Notes. 1. This table includes information derived number we believe to be no longer extant. 2. In four instances of 34 possible there is sor 10 13 27 29

Appendix II

**Burials from Curbridge** 

Other comments		Lying on side.	Slight osteo-arthritis on thoracic	verteorae.	Inca bone. Slight osteo-arthritis on	inoracie vertebrae.	Osteo-arthritis on cervical vertebrae. Fractured rib.			October 1 100 mos and bear of the	Ostco-artifictis officely ical years.	Buried beside 27, probably	simultaneous burial.	Osteo-arthritis on cervical vertebrae.
Orientation	zz	z	Z	ш	Э	Ž	Z	шшш	ıZ	ZZ	ZZ	z	Z	z
Decapitated								×	(	×				×
Metopism	,						×	×	(	×				×
Lambdoid wormians		2+					<u>+</u>							-
Loss	00/25	00/23		01/15	06/23		60/10	08/12	00/02	01/08	05/32			02/14
Abscess	00/24	00/23		02/11	91/00		60/10	01/02			04/24			02/11
Caries	00/23 03/16	00/20	01/02	01/04	03/13		01/08	10/00		01/02	05/22			03/07
Height	5′1″	5′8¾′′ 1.75 m	4′10½″	5′5″ 1.49 m	III CO. I						5.03"	11.55.1		
Age	20-25 40+	20-25	Adult	30+	40+	Adult	40+	16–20 45+ 45+	40 <del>+</del>	40+ Adult	30+	7 mo. i.u.	7 mo.i.u.	30+
Sex	I 0+	93	0+	'ο	0+	6.5	ć.	? &?	٠,	° °	 >+ O+			9.5
, Š	ω4	2	7	∞	=	12	13	4 5 6	22	23	27	28	32	98

Note. Nothing remained from graves 2, 16 and 26. The numbers are not consecutive because 'missing' numbers belong to other features on the site.

# **Burials from Queensford Mill**

Appendix III

Other comments		Osteo-arthritis on all vertebrae. Two pairs	tused: C7 & 11, 2 upper thoracics. Slight osteo-arthritis on two lumbar vertebrae.	Right arm longer. Benign osteoma on frontal:		Separate neural arch on fifth lumbar vertebra. Sacral spina bifida occulta.		Rivartite inca hone	Lesion on R femur, distal end.		Slight osteo-arthritis on lumbar vertebra, sacrum and left wrist. Greenstick fracture of left radius.	
Lambdoid wormians	-	0 0	0	0	0	0	0	0 0	•	0		0
Loss	08/32 00/31	00/28	91/00	00/29	07/16 10/14 03/04		00/04 00/23	06/20 00/16	00/04	21/28 00/12	03/17	00/24
Abscess	04/25 01/31	00/25 04/09	91/10	00/25	02/11		00/19	02/14	00/20	05/09 00/12	00/12	00/20 00/24
Caries	03/17	00/28	03/14	00/25	10/00		00/12 00/22	02/07 00/16	91/10	00/01	03/11	01/17
Height	5′5½′′ 1.67 m	57113"	1.82 m 5.7¼" 1.72 m	5′8½′′ 1·74 m	short	5′6″ 1·67 m	5'41"	1 64 III 5/5!"	1.66 m 5.7"	4.113"	5.3″ 1.60 m	
Age	30–40 30–35	c3 17-20 45+	30-35	20-25	Aged 45+ 45+	Adult	c7 25–30	45+ 13-14 30-35	e7 Adult	45+ 35-40	30-35	3-5 c12
Sex	ס" ס"	d to	'ο	ъ	O+ O+ C	+ <b>*</b> 0	c. 0+	0.00	o с. о.	*O O+	0+	c. c.
, S Z	- ~	w 4 v	9	7	601	17	5 4	15	81 61	20 21	22	24 25

Burials from Queensford Mill-cont.

Other comments	Slight osteo-arthritis on cervical vertebrae. Slight osteo-arthritis on thoracic and lumbar surebrae. Separate neural arch on final lumbar perebrae.	Slight osteo-arthritis on all vertebrae and thumbs. Fractured clavicle. ? Paget's disease.	Right arm longer. Slight osteo-arthritis on many	Osteo-arthritis on most vertebrae and at joints.	Separate neural arch on fourth lumbar vertebra. Metopic. Fractured ribs, clavicle, left tibia		Inca bone.	Slight osteo-arthritis on lower cervical vertebrae.	I sagittal wormian. Metopic, Slight osteo-arthritis on lumbar vertebrae.	linea bone. Slight osteo-arthritis on cervical and horacic vertebrae			l sagittal wormian. I sagittal wormian.	
Lambdoid wormians O	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1	0		0	_ a ,	0	S 0	- č	-	;		2   1	
Loss	05/32 11/31	10/32	05/32	03/16	00/06	61/00	00/32	00/06 14/28	03/25	03/14	00/12 00/24	00/14	61/00	01/14
Abscess	01/27	08/24	03/28	01/13	00/06	00/21	00/20 00/32	00/17 05/15	04/23	01/11	00/24 01/24	00/14	00/20 00/20 00/15	00/13
Caries	04/27	03/12	06/27	03/07	01/01	91/00	00/17	01/14 02/04	02/12	90/00	00/24 01/17	00/11	00/07	02/13
Height	5′8½″ 1·74 m		5′6½″ 1.60 m	1 69 1			short	5,33,"	5′7½′′ 1·71 m	5'11'' 1.56 m	5.51"	5.54" 5.54"	1.00 111	1.66 m 5.9½" 1.76 m
Age	40+ 45+	45+	5-6 35-40	45+	20–25 25–30	c12	young adult c2 20-25	610 40 40 40 40	40+	40 <del>+</del>	<i>c</i> 9 30–35	17–20	c1 <sup>1</sup> / <sub>2</sub> c3 25–30	25-30
Sex	O+ *D	<b>5</b> 0	o² •>	٠	O+ <sup>®</sup> O		٥٠. ٥٠ ٧	o² ··> ·	*0	0+	c. o.	O+	c. c. c	)+ <b>"</b> O
N O	26 29	30	31	33	34	36	33 38 39 49	54	46	47	48 49	20	52 53	55

		BURIAL								SANI	) BEF	IEAD	INGS					177	
2 coronal wormians.		Inca bones. ? Cuts on skull.	Cleft neural arch on eleventh thoracic vertebra.	Cleft neural arch on atlas.	Slight osteo-arthritis on mid-thoracic vertebrae.				Slight osteo-arthritis on some cervical and some	iumoai vertebiae, leit iiip.	Osteo-arthritis on cervical vertebrae, but C3 and C4	tused congenitally.	2 coronal wormians. Osteo-arthritis on cervical	and lumbar vertebrae. Left fibula fractured.		Metopic. Slight osteo-arthritis on lower thoracic and first lumbar vertebrae, infective arthritis of	Right of the remaining of the second of the remaining of	Osico-al III IIIs oli sevelai vei colae, alikies.	Metopic. ? Healed tuberculosis of spine.
10	0	-		-	-	5			0	0		0	-	0	0	\$ <del>+</del>	_	0	0
00/31	01/14	11/15	91/10	00/28 00/32		07/32		80/00	90/90	00/30	15/31	02/32	00/12	03/23	01/31	08/27	09/32	00/30	
00/31	00/13	00/04	00/15	00/08		07/32		20/00		04/30	02/16	00/30	00/24 05/14	01/20	01/27	02/20	03/24	00/30	
00/30	00/04	00/04 04/21	02/13	00/25 00/31		04/24		10/00		01/20	02/00	00/29	02/16 02/09	91/10	05/24	04/12	03/20	01/30	
4'101"		1.55 m 5′3¾′′ 1.67 m				-		1.62 m 4.10¼″ 1.48 m				4′10¼″					5′3¾″ 1.67 m		
20–25	7-8 mo. i.u.? 20-25	45+ 30-35	30–35	17–20 25–30	30+	45+	Adult	20–25	Aged	30–35	45+	20-25	2-4 7-8 45+	45+	40-45	30–35	45+	30-35	25+
O+	c. 04	÷ ÷	O+	o, 40	ъ	O+	O+	O+	ъ	9.0	·• O+	O+	0.500	٥,	O+	ъ	ъ	65	O+
56	56a 57	58 59	63	64	99	29	89	70	72	73	78	88	105 107 106	150	151	152	153	155	157

Burials from Queensford Mill-cont.

Lambdoid wormians Other comments								Cleft neural arch on fifth lumbar vertebra. Sacral spina bifida occulta.
Lambdoid wormians			0	<u>+</u>				9
Loss			02/32	90/00			00/28	00/28
Abscess Loss			00/30	90/00			00/28	00/28
Caries			02/28	00/02			00/22	00/28
Height	4′11¾″ 1·52 m		5.51"	1.66 m 4′111″	1.51 m	3 1½ 1.56 m		
Age	Adult	Adult	20-25	20–25	0,00	72-30	15-18	13–14
Sex	O+	6٠	ъ	0	+	0+	٠.	٠.
No.	172	174	175	176		<u> </u>	178	621

**Burials from Radley** 

Appendix IV

Other comments		L femur shaft curved – rickets?	L arm longer. Osteo-arthritis on lumbar	vertebrae.	Parts jaws only.	Sacralized fifth or sixth lumbar	Vertebra.  Osteo-arthritis on R radius and ulna	Exostoses on femur. Osteomata on frontal bone.		Exostosis on R tibia and fibula.	Osteoma on frontal.	Osteo-arthritis on sacrum, proximal	Metopic, Osteo-arthritis on all bones,	especially hips and sacrum.
Decapitated			×			×		_	~~		~	61		
Cranial index			72.8	72-8				75.9	74.8		76.3	70.2		
Longer right arm						×		×	٠.		×	٠.	×	
nsim1ow oinoi1512A			0	0				0	×		×	×		
Lambdoid wormians			0	9				3	7		0	-	7	
present Long bones	×	××	×	×	×	×	×	×	×	×	×	×	×	×
Bones present Skull Long bones			×	×	×		×	×	×	×	×	×	×	×
Loss			00/31	00/32	03/28		30/30	22/30	07/16	04/07	19/32	04/32	08/27	02/17
Abscess			00/31	00/32	04/25		00/00	02/08	05/09	02/03	03/13	05/27	05/19	01/15
Caries			02/20	00/29	01/15		00/00	00/00	03/05	00/00	04/09	07/22	01/11	00/10
Height	5'73''	5'31"	1.61 m 5′5½′′	5.21, 5.21,	5.6″	90 -	5.61"	5.6 5.6	5'41''	5′63″ 1.70 m	5′6½″	5.2."	5′6½′′ 1.60 m	1 03 111
Age	Adult	Adult 18-23								35+	40+	30+	40+	30-35
Sex	0+	o" +0	ъ	0+	0+	ъ	<b>"</b> 0	ъ	0+	ъ	<b>"</b> O	O+	ъ	٠.
, s	2	2 3/E	4/B	C	Q/9	9	7/15	∞	9 A	98	9/23	10/24	=	13

Burials from Radley—cont.

Other comments	Osteo-arthritis in L scapula and	Severe growth on L humerus, slight on	Osteo-arthritis on humerus.	Large tumour on R parietal. I sagittal wormian bone.	Mandible only.			Slight osteo-arthritis in L hip.	Six lumbar vertebrae. Osteo-arthritis on some vertebrae. Healed fracture	of L scapula. Osteo-arthritis on sacrum. Diseased	K Knee.	Slight osteo-arthritis on humerus.	Slight osteo-arthritis on radius. Severe	deloninty of telliora.
Decapitated		77.5		75.9	7			73.0	74.9	77.0	77.8			
Cranial index				75	77			73	74					
Asterionic wormian Longer right arm		×						×	×	×	×			
Lambdoid wormians	0	1? 0		× O				0	0	0	0			
Bones present Skull Long E	× 21	- × ×	× >	<i></i>	0	× ×	×	0 ×	0 ×	0 ×	×	×	×	
Bones	×	××		××	×		×	×	×	×	×			×
Loss		00/32 05/16		07/16	11/24 05/16		91/90	00/32	06/90	16/32	00/20			
Abscess		02/32 00/11		01/08	00/13 00/11		00/10	06/32	01/26	03/16	01/20			
Caries		03/21 02/04		00/01	02/06 03/07		00/04	09/29	04/17	01/02	04/17			
Height	5′9″	4′10³″ 4′10³″	# <del>6</del>				5.71.	5.6½" 1.60 m	5′5″ 5′5″ 1·65 m	5'31"	5′1¼′′ 1.55	5.81.	Ē	
Age	40+	17-22 40+	Adult	Adult 40+	35-40 30+	Adult	30+	30-35	40+	40+	17-22	Adult	Adult	Adult
Sex	50	¢ ¢	ъ ъ	. م ه ه د	٠,٠	o, o,	0,5	ъ	O+	0+	0+	9.3	9.3	0+
Ž	14/16A	14/16B 9 14/16C 9?	15A	17 18 18 18	18B 18C	18X 18Y	19	20	18N/21	22	25	28	29	32/33

	Mandible only.	Mandible only.	Mandible only.	Diseased knee.		Slight osteo-arthritis in L hip.
×	12	10	80	×		×
	10/	08/10	_			
			01/08			
			01/06			
				5'11"	1·81 m	
Adult	40+	40 <del>+</del>	40+	Adult		Adult
32/33 &	32/33X?	32/33Y?	32/33Z ?	32/33A &?		32/33B q

Notes. 1. In compiling the above table, some bones in differently numbered boxes have been allocated to the same body because they appear to belong to each other, though some element of doubt must remain. Hence: 7/15, 9/23, 14/16A, 14/16B, 14/16C, 18N/21.

2. Skeletons 3/E, 4/B, 6/D and 10/24 bore dual identifications. The skulls, mandibles and post-cranial remains in the multiple groups 18 and 32/33 could not be

satisfactorily correlated.

3. It is clear from the excavation report that there were two instances of decapitation and one prone burial. All the graves lay approximately N-S. For purposes of It is clear from the excavation report that the possibility of duplication: 18X and Y, 32/33A, B, X, Y and Z: 32/33 have been considered as a gand d, both Table 5 the following have been omitted to avoid the possibility of duplication: 18X and Y, 32/33A, B, X, Y and Z: 32/33 have been considered as gand d, both over 40 years.

## Appendix V

**Burials from Stanton Harcourt** 

Other comments	Osteo-arthritis on vertebrae. 6 lumbar vertebrae.		Osteo-arthritis on vertebrae and arms.	Broken ribs and radius. Metopic.	Osteo-arthritis on six lumbar vertebrae, R hip.	Osteo-arthritis on vertebrae, both hips. Considerable mandibular torus. TS & 6	fused congenitally. Slight osteo-arthritis on vertebrae.	Metopic. Osteo-arthritis on vertebrae and some	Joints. Hole in sternum.
Orientation	S	$\infty S$	ZZ	źzz	Z	z	S	Z	Z
Coffin nails or stain	×	×	×	××				×	
Decapitated				×					
Prone						×	×		
sanimow biobdmaJ	-	2	2	- 5	0	0 \	0	3	0
Loss	00/30	00/27	01/31 24/32	00/04 05/27 00/31	00/29	12/32	06/30	02/32	00/32
Abscess	03/30	00/28	00/21 04/07	00/03 03/18 00/23	04/29	05/19	05/24	04/30	00/32
Caries	03/19	01/26	03/22 00/03	01/04 03/16 01/25	02/28	05/13	01/50	10/27	00/30
Height	5'6" 1.68 m	5'3"	5′6″ 1.6° m	5/1½′	5.6" 1.68 m	5.7½" 1.71 m	5'31"	5.63.	5′4¼″ 1.64 m
Age	30–35	14–18 17–22	20-25 40+	20-25 20-25 20-25	40+	45+	30+	30-40	18–23
Sex	0+	0+	o* to	50 O+ O+	ъ	O+	0+	ъ	0+
No.	4	7 10	13	19 22 25	29	32	35	38	45
Grave No.	2	% »	<b>=</b> 4	17 20 23	27	30	33	36	43

Osteo-arthritis on vertebrae. Fractured L clavicle.	Cz & Juscu Congemany. Hole in sternum.		Metopic.	Buried with 62. Osteo-arthritis on vertebrae and R hip. Fractured	Litora & Iroura. Osteo-arthritis on vertebrae. ? Cyst on vertebra.	Slight osteo-arthritis on vertebrae.	Osteo-arthritis on vertebrae.	Slight osteo-arthritis on vertebrae. Upper third molars impacted.	Osteo-arthritis on vertebrae. Overlies 98 in		Officeries 95 in same grave. Osteo-arthritis on vertebrae and L hip.	Cz & 3 luscu congenitarry. Osteo-arthritis on vertebrae and R humerus.	Disturbed and reburied.	Disturbed and reburred.
Z	S	Z	Z	ZZ	Z	Z	Zω	ZZZ	Z	έź	S	Zυ	o o	Z
×	×	×		×	×	×					×	×	×	×
	×			×										
2+	7	9	3+	×	0	_	0 -					±	0	4
05/16	00/32	01/29	00/32	01/28	03/32	00/32	16/24 00/29	00/22		04/12	02/30	91/60	05/13	03/37
05/11	00/32	06/30	00/32	01/27	02/30	00/32	00/08	00/16		03/08	02/30	20/10	80/00	17/70
00/03	01/30	04/18	03/32	05/21	02/28	02/21	04/06 00/29	01/22 06/22		02/05	05/23	02/02	00/02	00/03
5/81/	5'73''	5′5½″ 5′5¾″	4′10″ 1:48 m	_ 4,.	5'8"	5′2″ 5′2″	5,61,	1.08 m 4711"	1.50 m		5.103	II. 90 III		
40+	25-30	25-30	20-25	neonatal 25–30	25-30	25-30	40+ 25-30	Adult 25-30 30-35	Adult	Adult 40+	30-35	40+	Adult 35+	25–30 c1½
ъ	ъ	0+	0+	o ي	"О	O+	O+ <b>'</b> O	০৮ ত ০৮	9.3	?	ъ	50		? ?
48	51	54	62	64	70	73	92	84 87 90	93	96 86	101	104	115	117
46	49	52	09	60	89	71	74	85 88 88	91	94	66	102	113 56	118

#### Appendix VI

#### Gazetteer of cemeteries in Great Britain containing decapitated and prone burials

The following gazetteer has been prepared from a survey of the literature. The sites, which are arranged alphabetically, are divided chronologically into two broad groups, Romano-British and Anglo-Saxon; there is one site of doubtful period.

#### Abbreviations used in the gazetteer

(a) Journals, &c.

A = Archaeologia

AC = Archaeologia Cantiana

AJ = Archaeological Journal

B = Britannia

BAR = British Archaeological Reports

CB = Crania Britannica

CBARR = Council for British Archaeology Research Report

G = Glevensis

JBAA = Journal British Archaeological Association

JRS = Journal of Roman Studies

MA = Mediaeval Archaeology

N&QS&D = Notes and Queries for Somerset and Dorset

O = Oxoniensia

PCAS = Proceedings of the Cambridge Antiquarians Society

PDNHAS = Proceedings of the Dorset Natural History and Archaeological Society

PHFC = Papers and Proceedings of the Hampshire Field Club

PSA =Proceedings of the Society of Antiquaries

RCAHM = Royal Commission on the Ancient and Historical Monuments

VCH = Victoria County History

VEHSRP = Vale of Evesham Historical Society Research Papers

WAM = Wiltshire Archaeological Magazine

(b) Other abbreviations

A-S = Anglo-Saxon

B = burial

C = century

Cr = cremation

D = decapitated burial

Ex = excavated

F = female

M = male

P = prone burial

R-B = Romano-British

Ref. = reference

The entries list the names of the site; county; National Grid reference; number of burials – B; number of cremations – Cr; number of decapitations – D; number of prone burials – P; dating – R–B or A–S; year(s) of excavation – Ex; and references – Ref. References not listed in full, other than to journals, &c., abbreviated as above, will be found on p. 169. Each site is preceded by a number by which it can be located on Fig. 5, p. 163).

#### Gazetteer of Romano-British and Anglo-Saxon cemeteries containing decapitated and prone burials

#### A. Romano-British cemeteries

- 1. Abingdon, Oxon. SU 483974. B11. D1; head between knees, adult M. P0. Probably late R-B. Ex. 1974. Ref. B (1975) 6: 279; Parrington, M. (1978), CBARR 28: 23-25, 36-37, 92.
- Alcester, Warwicks. SP 089572. B11: 1F, 10 infants. D1: head between legs, young F. P0. Late C4 or later. Ex. 1975. Ref. B (1976) 7: 331.
- 3. Baldock, Herts. TL 247339. B8: 2 adults, 6 juveniles. D0. P1: adult. R-B. Ex. 1968. Ref. *JRS* (1969) **59**: 222.
- Beckford, Worcs. SO 982361. B10. Cr1. D5: heads between knees or feet, some also had hobnails, one possibly in a coffin. P0. R-B. Ex. 1972. Ref. B (1973) 4: 287; G (1973) 7: 6-7; VEHSRP (1975) 5: 1-12.
- 5. Bloxham, Oxon. SP 4236. B30. D1: adult M. P3 or 4. R-B. Ex. 1930s. Ref. Knight, W. E. J. (1938).

- 6a. Cassington, Oxon. SP 449103, B100+, Cr 2, D16; 7 buried prone, P14 or 16; 7 also decapitated. R-B. Ex. 1930s. Ref. JRS (1937) 27: 237; this report; O (1936) 1: 201; O (1937) 2: 201; O (1938) 3:165.
- 6b. Cassington, Smith's Pit II, Oxon. SP 450282. B3. D0. P2; adult Ms. Possibly same as bypass cemetery. Ex. 1950. O (1950) 15: 104-110.
- 7. Charlton Mackrell, Somerset, ST 532294, B15, D2; skull placed at feet, P0, R-B, Ex, 1956, 57, Ref. Hayward, L. C. (1958), N&OS&D 27:180-181; Dewar, H. S. L. (1958), N&OS&D **27**: 206–207.
- 8. Cherry Hinton, Cambs. TL 484555. B3. D0. P1: F under 20 years. Probably R-B, possibly Iron Age, Ex. 1907, Ref. Walker, F. G. (1908), PCAS 12: 267-273.
- 9. Cirencester, Glos, SP 0201, B354, D0, P5, R-B, Ex. 1970-74, Ref. B (1975) 6: 271.
- 10. Cogenhoe, Northants. SP 828607. B1. D1: elderly M. P0. R-B. Ex. 1975. Ref. Northants Arch. (1976)11:191.
- 11. Curbridge, Oxon. SP 337089. B21: some with hobnails, D3, P0, C2-C4, Ex, 1975. Ref. Chambers. R. A. (1976, 1978).
- 12. Cuxton, Kent. TQ 712665, B1, but possibly part of inhumation and cremation cemetery, D1; head between knees, young F. PO. Late C1? Ex. 1962. Ref. Tester, P. J. (1963), AC78: 181-182.
- 13. Dorchester, Dorset. SY 697906. B68+: most in wooden coffins, Cr2, D1; head between knees, P2. R-B. Ex. 1838-39, 1971. Ref. RCAHM Dorset 11 (1970): 573; B (1972) 3: 345.
- 14. Dunstable, Beds. TL 017215. B101. D12: head between or beside legs, includes one decapitated infant 3-6 months old, one F with head removed and placed between thighs, lower legs removed and placed beside upper arms. Late R-B. Ex. 1970s. Ref. Matthews, L. (1979), Curr. Archaeol. **69**: 310–312.
- 15. Duston, Northants. SP 732603. B17. D3: all adult, 1M, 1F; one with head between legs. P0. R-B. Ex. 1974, 1976. Ref. B (1976) 7: 334; Northants Dev. Corp. Arch. Unit (forthcoming). NCD site R101.
- 16. Girton, Cambs. TL 423609. B large cemetery, inhumations and cremations. D1: head and first 3 cervical vertebrae between feet. P0. Mainly Anglo-Saxon, decapitated burial regarded as Roman. Ex. 1881, 1886. Ref. Hollingsworth, E. J. & O'Reilly, M. M. (1925), The Anglo-Saxon Cemetery at Girton College Cambridge; Liversidge, J. (1977); Meaney, A. (1964); 65-66.

17. Great Casterton, Rutland. TF 0009. B several, D3: adult or sub-adult, one child, P0. Possibly

Roman or Saxon. Ex. 1966. Ref. JRS (1967) 57: 183, 185.

- 18. Guilden Morden, Cambs. TL 286402. B120: M, F, adults, children, Cr60+, D7+; 1F+1? with head at feet; IF with head in lap; I with head between legs; IM buried prone was decapitated but had head in normal position. P2: Ms, one in charred coffin with head missing and lower arms and legs charred. other with head cut off. R-B. Ex. 1924, 1935, 1968. Ref. Fox, R. & Lethbridge, T. C. (1926), PCAS 27: 49-63; Lethbridge, T. C. (1936); JRS (1969) 59: 223.
- 19. Helmingham, Suffolk. TM 1857. B24+several hundred, all M or children buried in enclosure, others also mutilated: severed arms, leg removed. D1: head in correct position relative to body, propped on a flint, one vertebra buried apart. Po. R-B. Ex. 1860s. Ref. Cardew, G. (1865), JBAA 21:267-273; VCH Suffolk 1 (1911):308.
- 20. Ilchester, Somerset. ST 520224, B60. D 'burial with displaced head occurred'. P 'prone burials occurred'. Late C4 or C5 AD, mainly adults, mostly coffined, mostly with boots. Ex. 1975. Ref. B (1976)7:357-358.
- 21. Kenchester, Herts. SO 4442. B2. D1. P0. R-B. Ex. 1977. Ref. B (1978) 9: 438.
- 22. Kimmeridge, Dorset. SY 906792. B2. D1: head by shins, elderly F in cist with spindle whorl, mandible apparently detached independently; second burial of elderly F on cist lid also had detached mandible. PO. Late C3? Ex. 1947. Ref. Calkin, J. B. (1947).
- 23. Lambourn, Berks. SU 358817. B3. D2: heads at feet. P0. C4. Ex. 1960. Ref. Berkshire Archaeological Journal (1967-68) 63:70.
- 24. Lankhills, Hants. SU 479303. B374. D7: heads by legs or feet, one child. 3M, 2F, 1 other adult. P14: 5M, 1F (also decapitated), 1 infant. Late C4. Ex. 1970s. Ref. Clarke, G. (1979).
- 25. Leicester, Leics. SK 580044. B3+: 1F, 2 infants. D1: head between thighs, infant. Late R-B. Ex. 1953, 1975. Ref. B (1976) 7: 327.
- 26. Littlechester, Derbys. SK 362375. B46: adults and children. Cr? D3: 1M, 1F? P7: 3M, 4F. R-B. Ex. 1979. Ref. Director, Trent Valley Archaeol. Res. Comm. (pers. comm).
- 27. Lord's Bridge, Cambs. TL 394544. B2. D2?: one with head separated from body; F about 23 years, also prone disjointed skeleton laid out in correct order, head by pelvis. Pl: disjointed F in stone coffin with hobnails, also decapitated. First decapitated skeleton may be secondary, possibly A-S. Ex. 1907. Ref. Walker, F. G. (1908), PCAS 12: 273-284.

- 28. Manton Down, Wilts. SU 1471. B1. D1: head between feet, young F, in chalk-cut cist, neck severed at 6th cervical vertebra, first cut slanting, Early C4. Ex. 1891. Ref. WAM (1892) 26: 412.
- 29. Margidunum, Notts. SK 701413. B15+: M, F, adults, children. D1: head beside feet, also buried prone, youth, possibly M. P1: youth, also decapitated. Late R-B. Ex. 1968. Ref. Todd, M. (1969), *Trans. Thoroton Soc. Nott.* 73: 75.
- 30. Mundford, Norfolk. TL 793941. B7. D2: heads beside feet, young adult M and elderly F. P0. C4? Ex. 1963. Ref. Norfolk Res. Comm. Bull. (1963) 15: 10; JRS (1964) 54: 168.
- 31. Orton Longueville, Hunts. TL 167952. B8: adults. D1: skull in foot of grave, old F. P0. Associated with early C2 farmstead. Ex. 1974. Ref. B (1975) 6: 252.
- 32. Owslebury, Hants. SU 525246. B51. Cr19. D0. P1: carelessly laid out. C2-C4. Ex. 1961-72. Ref. Collis, J. (1977), CBARR 22: 26-34.
- 33. Perrymead, Somerset. ST 7563. B1. D1: 'headless skeleton' in stone coffin. P0. R-B. Ex. 1952. Ref. JRS (1953) 43: 123.
- 34. Poundbury Camp, Dorset. SY 685911. B1400+. D2F: skull by feet (disturbed by later grave?); in ditch at Poundbury Camp, head at feet. P0. Late R-B. Ex. 1970-80. Ref. *PDNHAS* (1970) 92: 138; (1971) 92: 281.
- 35. Radley, Berks. SU 514983. B35: adults. D2: heads between knees. P1. C4. Ex. 1945. Ref. JRS (1946) 36: 144; Atkinson, R. J. C. (1952).
- 36. Rushton, Northants. SP 860838. B24. D24: M, F, children, secondary burials in two rows around a barrow. Date uncertain. Ex. 1964. Ref. JRS (1965) 55: 210.
- 37. Sawbridgeworth, Herts. TL 473137. B24: 22F, 1 infant, 1 child, some with hobnails. D1: head above shins. P0. C3-C4. Ex. 1936. Ref. Andrews, L. C. (1936), *Trans. E. Herts. Arch. Soc.* 9:364-366: *JRS* (1937) 27:239.
- 38. Sea Mills, Glos. ST 558137. B3. Cr9. D1: skull placed on pelvis, child. P2: adults, one with boots. Cr: early; B: C2 or later. Ex. 1972. Ref. Arch. Excav. (1972): 53; B (1973) 4: 309-311.
- 39. Springhead, Kent. TQ 6172. B4. D2. P0. 2 pairs of infant burials each associated with a different floor level, and each including one decapitated infant. One burial in each corner of Temple IV, all appear to be crouched. Ex. 1950s. Ref. Penn, W. S. (1960), AC 74: 113-140.
- 40. Stanton Harcourt, Oxon. SP 415050. B36. D3: heads between knees or at feet, one buried prone. P3: 1 adult M also decapitated, 2 adult F, R-B. Ex. 1978. Ref. McGavin, N. (1981), O 45: 112-123.
- 41. Stretton on the Fosse, Warwicks. SP 218383. B14+: some with boots, some in coffins, D?. P0. Late R-B. Ex. 1971. Ref. W. Midlands Arch. News Sheet (1972) 14: 22; CBA (1977) 22: 53-64.
- 42. Studland Church, Dorset. SZ 0382. B1. D1: head by left foot, F in cist with spindle whorl. P0. R-B. Ex. 1952. Ref. JRS (1953) 43: 125.
- 43. Temple Guiting, Glos. SP 1226. B16+: some with boots, some in coffins. D2 at least: 1 head by feet, 1 head between knees. P0. R-B. Ex. 1870s, 1880. Ref. Royce, D. (1882-3), Trans. Bristol Glos. Arch. Soc. 7: 76-77.
- 44. Todbere, Dorset. ST 8020. B1. D1: skull with first 3 vertebrae, beside shins, M, in lead coffin with hobnails and spindle whorl. P0. R-B. Ex.? Ref. Mansell Pleydell, J. C. (1892), PDNHAS 14: 24.
- 45. Tripontium, Warwicks. SP 535795. B50+ scattered: M, F, adult, children, including a headless body and 1 young F buried without lower vertebrae, left arm or lower legs some evidence of strangulation. D1 or 2: head across ankles, young F. P0. R-B. Ex. since 1930. Ref. Cameron, H. & Lucas, J. (1967, 1973), Trans. Bgham Arch. Soc. 83: 130-179; 85: 93-144.
- 46. Uffington, Berks. SU 300865. B46: M, F, adults, children. D3?: 1M head below knees, also buried prone, 1M & 1F headless. P5: 1M also decapitated. Burials in barrow, few disorderly. Ex. 1858. Ref. CB (1865) pl. 51: 1-6; WAM (1927) 43: 437.
- 47. Walkington Wold, Yorks. SE 962357. B12: 11M, 1F. D10: the only F burial has head buried a little beyond the feet. P0. Secondary burials around a barrow, 3 simultaneous in 1 grave above a fourth. Associated with 'Germanic' objects. Ex. 1967, 1968. Ref. Bartlett, J. E. & Mackay, J. W. (1973), E. Riding Archaeol. 1: 1-93.
- 48. Winchester, Hants. SU 481299. B80: 12 adults, 68 children or infants. Cr92. D1: adult. P0. Late C1 or C2. Ex. 1973-77. Ref. B (1978) 9: 465.
- 49. Winterbourne Down, Wilts. SU 203324. B14: 5 adults, 3 infants in coffins, hobnails and cleats in 5 graves. Cr36. D3: adults. P0. Cemetery within banked enclosure, C4. Ex. 1962. Ref. WAM (1963) 58: 470.
- 50. Woodyates, Dorset. SU 032199. B5: burials with a square enclosure. D: 1 or 2, 1 head and four vertebrae by right tibia, a possible decapitation with boots. P0. Late R-B. Ex. 1888-91. Ref. Pitt Rivers, F. L. (1892), Excavations at Bokerly and Wansdyke 3: 211.
- 51. Wor Barrow, Dorset. SU 012172, B17: secondary burials in barrow, 16 adult M, 1 adolescent. D2: skulls by left femora, also 8 with heads absent. P1, beside 2 decapitations. R-B. Ex. 1893-96. Ref. Pitt Rivers, F. L. (1898), Excavations in Cranborne Chase 4: 58-78.

- 52. Wroxeter, Salop. SJ 5608. B1. D1: head by shins, also prone. P1: also decapitated. Late or post-Roman. Ex. 1923-27. Ref. Atkinson, D. (1942), Excavations at the Roman Town of Wroxeter: 112-113, pl. 30B.
- 53. Wroxton St Mary, Oxon. SP 415418. B8+. D1: head between thighs, adult F. P1, adult M. R-B. Ex. 1980. Ref. Chambers. R. A. (forthcoming).
- 54. Wycombe, Glos. SP 025197. B few? D1: head at feet, M. P0. C4. Ex. ? Ref. Clarke, G. (1979).

#### B. Anglo-Saxon cemeteries

- 55. Beakesbourne, Kent. TR 200555, B40+. D0. P1. A-S. Ex. 1950s. Ref. Meaney, A. (1964): 109.
- 56. Brighthampton, Oxon. SP 383033. B67+: some with cleft skulls. Crl 1+ D1: skull in lap. P0. A-S. Ex. 1857. Ref. Akermann, J. Y. (1857), A 37: 391-398.
- 57. Burwell, Cambs. TL 590660. B113. D1: skull beside feet, cuts into face, adult M. P1. A-S. Ex. 1884, 1924-26. Ref. Lethbridge, T. C. (1924-28), *PCAS* (1924-5) **27**: 72-79; (1925-6) **28**: 116-123; (1926-7) **29**: 84-94; (1927-8) **30**: 97-109.
- 58. Camerton, Somerset. ST 686566. B115. D0. P1: adult F. A-S. Ex. 1926-32. Ref. Meaney, A. (1964): 218.
- 59. Chadlington, Oxon. SP 330210. B16: M, F, adults, children. D3: adult M. P0. A-S. Ex. 1930s. Ref. Leeds, E. T. (1940), O 5: 23-30.
- 60. Cuddesdon, Oxon. SP 600031. B several: arranged radially feet to centre of circle, legs crossed. D0. Pall. A-S. Ex. 1847. Ref. AJ (1847) 4: 157–159; Dickinson, T. (1974), BAR 1: 1–24.
- 61. Dunstable, Beds. TL 006210. B94: mostly adult Ms, some simultaneous burials, many with hands tied. D2? headless. P3. A-S. Ex. 1926-29. Ref. Dunning, G. C. & Wheeler, R. E. M., AJ (1931) 88: 193-217.
- 62. Elloughton, Yorks. SE 941278. B some: careless burials, M, F, 1 child, in a sack? D1? headless. P some. A-S. Ex. 1940. Ref. Meaney, A. (1964): 287.
- 63. Farthing Down, Surrey, TQ 299583. B27. D0. P2: 1M?, 1F. A-S. Ex. 1760, 1871, 1939, 1948-50. Ref. Meaney, A. (1964); Arch. News Letter (1950) 2: 170.
- 64. Frilford, Berks. SU 437964. B numerous. D0. P1: M. A-S. Ex. 1868. Ref. Rolleston, G. (1870): 437, 477.
- 65. Great Addington, Northants. SP 957744. B many. D3? three or four stones heaped up in place of heads of headless bodies. P some. A-S. Ex. pre-1847. Ref. Meaney, A. (1964): 186.
- 66. Holdenby, Northants. SP 695671. B29+. D0. P1: F, above an older burial. A-S. Ex. 1862, 1864, 1899, 1909. Ref. Meaney, A. (1964): 190.
- 67. Houghton, Hunts. TL 285721. B1. D0. P1: face down and doubled up. A-S. Ex. pre-1868. Ref. Meaney, A. (1964): 106.
- 68. Little Downham, Cambs. TL 523838. B many. D0. P1: M. A-S. Ex. 1928, 1933. Ref. Meaney, A. (1964): 64.
- 69. Little Wilbraham, Cambs. TL 560577. B200+. Cr135+. D0. P2: adults, 1M. A-S. Ex. 1847-51, 1923, 1926. Ref. AJ (1851) 8: 172-175; Neville, R. C. (1852), Saxon Obsequies: 15.
- 70. Loveden Hill, Lincs. SK 908458. B12. Cr300+. D1: head on stomach. P0. A-S. Ex. 1921-26, 1955-70s. Ref. Meaney, A. (1964): 158.
- 71. Market Weighton, Yorks, SE 8741, B2, D0, P1; F. A-S. Ex. 1906, Ref. Meaney, A. (1964): 295.
- 72. Meon Hill, Hants. SU 344352. B10: secondary burials at a hill fort, 4 probably with hands tied. D6: M, 2 with heads between knees, 1 between thighs, 2 in normal position, 1 also prone. P2: Ms, one also decapitated, A–S. Ex. 1932. Ref. Liddell, D. M. (1934), PHFC 12: 127–162.
- 73. Mitcham, Surrey. TQ 270861. B230+: several have extra skull in graves, excavations poorly recorded. D1: M, skull at feet. P4: three F, one above another supine F, simultaneous burial. A-S. Ex. early C19, 1888-1922. Ref. Bidder, H. F. & Morris, J. (1959), Surrey Arch. Coll. 56: 51-131.
- Portsdown, Hants. SU 666064. B14+. D1: shoulder placed close against east end of grave with head on top, young adult. P0. A-S. Ex. 1816, 1966. Ref. Bradley, R. & Lewis, E. (1968) PHFC 25: 27-50.
- 75. Prittlewell, Essex. TQ 878873. B several. D0. P1. A-S. Ex. 1931. Ref. Meaney, A. (1964): 87.
- 76. Roche Court Down, Wilts. SU 251357. B17: probably entirely male cemetery, 4 at least probably had hands tied. D9 or 10: Ms, 1F? P2: young adult M, one possibly also decapitated. A-S. Ex. 1930. Ref. Stone, J. F. S. (1930–32), WAM 45: 568–599.
- 77. Ruskington, Lincs. TF 076514. B25. Cr2. D0. P3: child c. 9 years, 2F: adolescent, adult, A-S. Ex. 1975. Ref. Atkin, M. (pers. comm.).
- 78. Sewerby, Yorks. TA 205691. B49+: M, F, adults, children. D0. P1: F above coffined burial of F. A-S. Ex. 1959. Ref. MA (1960) 4: 137.

- 79. Thetford, Norfolk. TL 860820. B about 50, associated with an earthwork. D all decapitated. PO. A-S. Ex. 1957. Ref. Bull. Br. Archaeol. Assoc. (1957) 93: 2.
- 80. Toddington, Beds. TL 030292. B13. D0. P1: M. A-S. Ex. 1861, 1874, 1876, 1883. Ref. PSA (1884) 10: 36-38; Meaney, A. (1964): 40.
- 81. Totternhoe, Marina Drive, Beds. TL 008214. B38+ many. D0. P1. A-S. Ex. pre-1957, 1957-8. Ref. Meaney, A. (1964): 41.
- 82. Uffington, Berks. SU 300865. B6: carelessly buried skeletons. D3: 2M, 1 young person, head beneath knees. P0. A-S. Ex. 1858. Ref. CB (1865) pl. 51: 1-6; VCH Berkshire (1906-): 247.
- 83. Wheatley, Oxon. SP 602046. B16+. D1: skull between knees. P1. A-S. Ex. 1883. Ref. Leeds, E. T. (1916), PSA 29: 48-64.
- 84. Worthy Park, Hants. SU 500327. B94. Cr37+. D0. P2: one F, late 20s disorderly, one adolescent F, laid out, possibly tied. A-S. Ex. 1961-63. Ref. MA (1962-3) 6-7: 307, (1964) 8: 233; Hawkes, S. C. & Wells, C. (1975).

#### C. Doubtful period

85. Wandlebury, Cambs. TL 495533. B5+: one individual had sword cut in chin, no artefacts. D0. P1: with arms outstretched, above another supine burial. Presumed to be Iron Age. Ex. 1976. Ref. Taylor, A. & Denston, B. (1977), PCAS 67: 1.